THE BUILDER
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Old Shop Front, Wavertree, Liverpool.

From a drawing by Mr. David S. Finlason, L.R.I.B.A.

This pleasing little front is one of the original shops built in Wavertree Village about 100 years ago. The steps project half way across the pavement, in a way that was common before the introduction of modern building by-laws.

MEETINGS

Friday, *February* 26.

Institution of Structural Engineers (*Midland Counties Branch*). Mr. A. N. Proctor on "Laterally Unsupported Beams." At Birmingham. 7 p.m.

Royal Sanitary Institute. Discussion on "Controlled Tipping." At the Town Hall, Wallasey. 4 p.m.

Incorporated Association of Architects and Surveyors. Mr. L. Maddock on "Town and Country Planning Bill." 7 p.m.

Wednesday, *March* 2.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "English Renaissance, 1500-1900." 6 p.m.

Electric Lamp Manufacturers' Association. Lecture on "Electric Lamps." At 15, Savoy-street, W.C.2.

Institution of Heating and Ventilating Engineers. Mr. A. C. Pallot on "Pipe Corrosion." At 20, Hart-street, W.C.1. 7 p.m.

Institution of Structural Engineers (*South Wales Branch*). Mr. A. A. Fordham on "Impact Allowances in Bridge Design." At Cardiff. 7 p.m.

Institution of Structural Engineers (*Scottish Branch*). Mr. F. A. Preston on "Control of Structures by Regulations." At the Ca'doro Restaurant, Glasgow. 7.30 p.m.

Wednesday and Thursday, *March* 2 *and* 3.

Lighting Conference. Architects' Conference on Electric Lighting. At 15, Savoy-street, W.C.2.

Thursday, *March* 3.

L.C.C. Central School of Arts and Crafts. Mr. P. J. Cayley on "Paint." 7.30 p.m.

Institution of Municipal and County Engineers. Visit of the West Midland District to the British Industries Fair. At Castle Bromwich, Birmingham, 1 p.m.

Hull Guild of Building. Mr. G. McLean Gibson on "Manufacture and Uses of Portland Cement."

Auctioneers' and Estate Agents' Institute. Mr. Alfred J. Burrows on "Impressions of Real Estate in Canada." 8 p.m.

Friday, *March* 4.

Institution of Structural Engineers (*Western Counties Branch*). Mr. W. T. Creswell on "The Employment of Structural Engineers as Specialists." At Bristol. 7.30 p.m.

West Yorkshire Society of Architects. Mr. Joseph Emberton on "Rational Architecture." At Leeds. 7 p.m.

Incorporated Institute of British Decorators. Mr. O. P. Bernard on "New Decorative Accessories." At the London School of Hygiene and Tropical Medicine, Keppel-street, W.C.1. 8 p.m.

Institution of Civil Engineers. Mr. M. Harbottle on "Bridge Reconstruction Problems." At Glasgow. 7.30 p.m.

Saturday, *March* 5.

St. Paul's Ecclesiological Society. Visit to St. Andrew, Well-street, and All Saints, Margaret-street, conducted by Mr. W. W. Begley. 2.30 p.m.

Monday, *March* 7.

Royal Institute of British Architects. Presentation of the Royal Gold Medal to Dr. H. P. Berlage. 9 p.m.

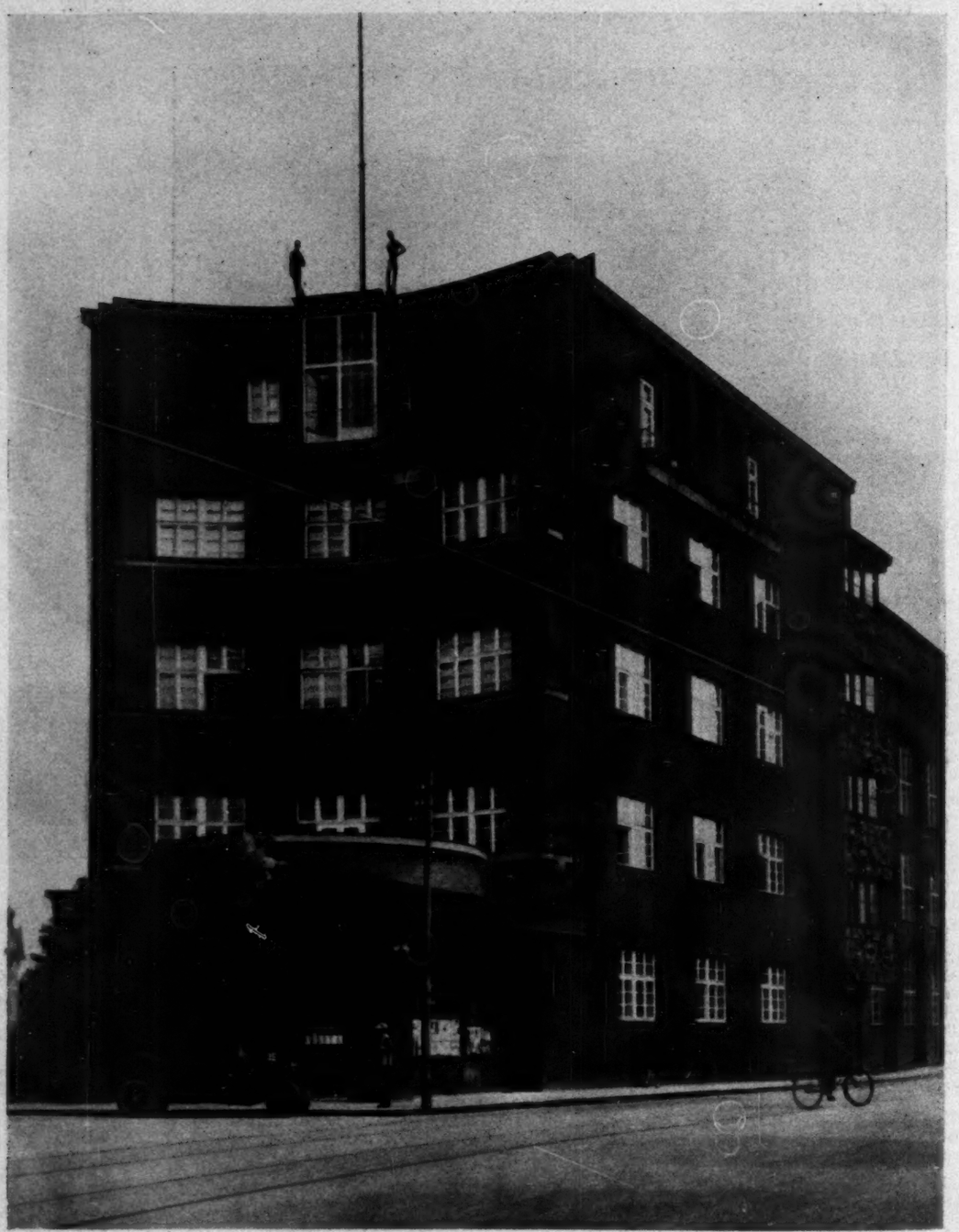
Tuesday, *March* 8.

Royal Sanitary Institute. Discussion on "Engineering Aspects of the Control of Rivers." 6 p.m.

Wednesday, *March* 9.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "English Renaissance, 1500-1900." 6 p.m.

Manchester Society of Architects. Mr. A. B. Knapp-Fisher on "Architecture and the other Arts." 6.30 p.m.



Newspaper Office, Salzburg.

(*See page* 384.)

THE AMENDMENT OF THE LONDON BUILDING ACT

EARLY last year the London County Council appointed a committee to consider and report as to any necessary amendments to the London Building Act. It had been obvious for a long time that the Act consolidated in 1930 required revision, and views to this effect by those responsible for building have been widely expressed. A comparatively simple and stabilised process less than a century ago, building has now become so complex that unless the public regulations drawn up to safeguard the amenities of our cities and to ensure sound construction are kept in touch with progress, great waste of time and material and considerable hardship to building owners must result.

It is not only that new requirements have to be met owing to changing modes of life and the demands of new industries, nor merely that new materials which appear almost daily on the market have to be considered in relation to regulations formulated for older materials and constructional modes. During recent times, in the last decade more particularly, the trained scientist has been very hard at work upon building problems. The Department of Scientific and Industrial Research, through its Building Station near Watford, has handled a large number of these problems, while certain Research Associations, notably in connection with the common metals, have contributed to this field. Private enterprise, again, has entered these spheres of investigation, now appreciating that a small expenditure on laboratory workers and equipment is likely to result in some discovery which, possibly in itself apparently trivial or obscure, may lead to some improvement in material exercising a profound influence on manufacture and hence on the finances of an industry. This collective progress has resulted in a general "toning up" in the standard of building and a much wider and better applied knowledge of the properties of materials. The outcome of this is to be seen in the large number of standard specifications issued through the work of the British Standards Institution, on the committees of which experts give unstintingly of their time in the public weal.

It would almost seem, therefore, that these advances would justify the redrafting of the relevant portions of the Building Act in a different spirit, recognising and incorporating the work of the bodies to which allusion has been made, and, with a consciousness that knowledge is ever increasing, including some greater measure of elasticity which would admit of more discretionary powers on the part of those who build and also of the Councils' officials who have to administer the Act.

The work of the committee on the Act has been concerned with the consideration of the Third Schedule relating to steel construction, which has not been revised since its introduction in 1909. At that date steel-framed buildings in this country were in their infancy; hence those regulations were deprived of the best guide any rules can have, namely, experience. It is generally admitted, and the Council accepts this view, that the schedule as it stands is very unsuitable in many respects. Engineering practice has developed considerably in the last twenty years, and though the theory of structures may not have greatly changed, practical applications have advanced enormously. Steel forms a good example of the value of research. It has long been known that trivial proportions of other bodies introduced into steel have an astonishing result on its mechanical properties, and this knowledge has now had time to penetrate into the practice of steel manufacture.

The steel industry itself in pressing for the reform of the schedule has offered much assistance in suggesting modifications. Research was begun in 1929, when a Steel Structures Research Committee was set up representing the Institution of Civil Engineers, the British Steelworks Association and the Department of Scientific and Industrial Research through certain appointed nominees. The proposals to replace the old schedule now put forward by the Council are indeed based on the findings of this committee, hence the New Code will come into operation with the full recognition of engineers and the engineering trade, a happy condition which does not fall to the lot of all enactments.

It will enable advantage to be taken of the economies in rolled sections recently introduced by the elimination of a number of little-used sections till recently appearing in makers' lists, with a corresponding stimulus to industry. As with many other industries, a very large number of varieties of joists have long existed which can well be discarded without detriment to the designer and with very great assistance to the trade, which thus freed from much cumbrous stock will be able to offer better terms to its customers with a consequent stimulation in demand. The New Code, of course, is not concerned with steel only, but also with the incidental materials necessary in this construction, and concrete, bricks, hollow walling blocks and other materials are dealt with in the light of modern practice. Again, the bearing pressure to be allowed on brickwork, concrete in foundations and soil is re-defined and due allowance made for variation in material.

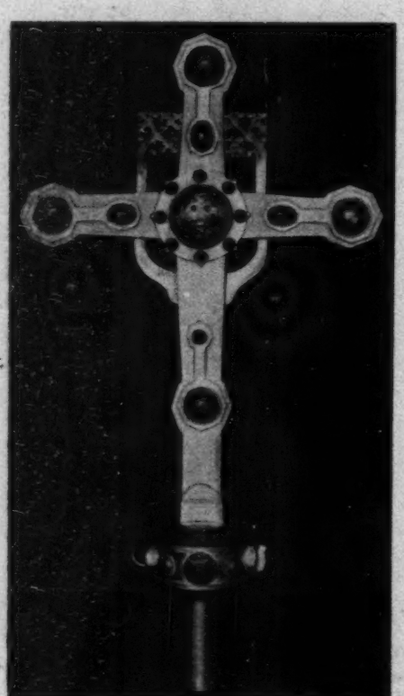
This is not the place in which to enter into a detailed comparison of the schedule of 1909 and the New Code, but the latter is no perfunctory revision but forms a genuine attempt to produce rules suitable for present-day conditions, and while possibly not meeting the views of every critic, the Code, which, we understand, is already in operation, will very markedly assist all those concerned with the erection of new structures of any magnitude. Further, as pointed out by the Chairman in submitting the proposals to the Council, it will do much to assist one of our most stricken national industries, and though, of course, only concerned with the Council's administrative area, it may be taken for granted that these regulations will become the established practice throughout the country.

This work is the first fruits of the committee's labours in the revision of the Act, and we strongly commend the decision to bring forward this New Code and put it into practice prior to further revisions which must necessarily take much time. The interest in and importance of the work is indicated by the fact that more than a thousand suggestions for improvements in the Act have been received by the committee. It is hardly too much to say that with the complete revision the building industry may look forward to a new chapter of increased prosperity as far as London is concerned, and we are glad to take an early opportunity of showing our appreciation of the work so far done.

NOTES

Waterloo Bridge. The deep and widespread concern as to the fate of Waterloo Bridge will raise the question in many minds how far a public body may commit us to a course of action which is possibly outside the proper limits of their jurisdiction. Here we have a public body preparing to demolish a work of fine architectural significance, and in so doing affronting the sensibilities and judgment of a large and influential body of educated public opinion! This destruction of Waterloo Bridge is supposed to be dictated by practical necessity, but it has been amply proved to be nothing of the kind. Is it right that a public body which is appointed to look after our interests should have the power to override all the thought and feeling which represent the best art of the country?

The Protest of Artistic Opinion. A CORRESPONDENT writes to us:—"The more one considers the situation as regards Waterloo Bridge, the less credible does it seem that any public body should have the power to make a decision as to the fate of Waterloo Bridge and override the strongly expressed views of so large a body of the cultured opinion of the country as regards the value of a great national monument. There must be some definite limit to the extent of powers exercised by our councillors and this limit has surely been overstepped. The whole cultured opinion which has been so unequivocably expressed by all our leading artistic societies and the leading individual artists, is in the most pronounced opposition to the proposals of the County Council. And to crown the matter, there is no justification on grounds of economy or sound town planning counsel for their action. Is it possible that such procedure can be in the best interests of the public?"



Cathedral Processional Cross.

Designed and executed by the late MR. ALAN C. WALKER, A.R.I.B.A.
(*See page* 380.)

[This cross is of silver, mounted with Chinese jade, amethysts, agates and red cornelians. The monogram is in gold. The total height is 1 ft. 9 in. and the width across arms 1 ft.]

Unemployment in the Building Industry. WE give on page 382, a résumé of the case put before the Minister of Health on the 4th inst., when a deputation of the Building Industry stated the case for a reconsideration of the economy recommendations so far as they concern remunerative work and local authorities. It is difficult to arrive at a reasonable agreement as to the right direction to take in this matter of economy. In some country districts, we understand, the holding up of building work is a welcome policy to the local authorities, who are anxious to reduce the local rates, but they presumably overlook the result of this policy so far as it affects employment. The stoppage of remunerative building work not only seriously affects the Building Industry, but the country as a whole. So far as the Industry is concerned the position is far from healthy as a result of the present economy campaign, but it may become far worse should there be an increase in the cost of living, as seems probable, with a consequential increase in wages provided for by the fixed agreement between the operatives and employers, which was made before the Government and the local authorities abandoned or reduced their building programmes. Unless the operatives agree to forgo any increase which might be due to them in the event of an increase in the cost of living, there may very well be a further serious decline in employment in the Building Industry.

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Competition in Tendering. AN inquiry sent to a builders' merchant for prices of materials, wherewith to make up a tender for a certain job elicited the reply that this firm themselves were tendering for the same job! This shows how builders have to face competition from all quarters, and such licence can hardly find favour with builders. Moreover, it is certainly a question whether such incursions into the ranks of tendering builders should be encouraged by architects or their clients. There is more careful consideration paid to-day to the merits of the lowest tender which, though in some cases fair enough, is too often put forth only in the full expectation of various allowances and considerations which will be relied upon to redress an adverse balance.

The Office and its Equipment. THE idea of the Design and Industries Association to give consideration to the subject of "Economy of good design in the office and its equipment" is to be commended, and a good number of members and guests were present at Gatti's Restaurant on Tuesday to hear various speakers, under the chairmanship of Mr. Frank Pick, enlarge upon this very neglected subject. It was a great disappointment to many that time did not allow of a more thorough ventilation of the matter in hand. Mr. W. Desborough, in the course of a brief but able speech, said that the mechanisation of office work must be accepted as a necessary condition of progress, and suggested that the architect was lagging behind current practice in so far as modern office requirements were concerned. Mr. J. Sellars then referred to the building owner, expressing the opinion that it was often the case that the question of office equipment was left to the end by the owner, with the result that the money often fell short. He stressed the advantage of steel for furniture and partitions. Mr. Grey Wornum, in an amusing speech, vindicated the honour of the profession by stating that most office blocks to-day were built as a speculation and the architect did not know how each floor was going to be used. He put in a good word for the common type of furniture, stating that as people spent two-thirds of their waking hours in offices, one could not take away all sentiment and put them into a factory life. Mr. Wornum gave some amusing examples of how furnishing could be adapted to suit business. He could not see many firms adopting a really modern style of decoration, say, in their boardroom, "lest mushroom growth or chicanery or some other devilment be suspected." That day might come when factories were built and equipped on modern lines; then a modern boardroom would be a logical development from the modern factory. The chairman, who summed up, alluded to the hampering rigidity of the London Building Act. The subject then appeared ripe for discussion, more especially as there were present those who could have contributed usefully to the fund of common knowledge. We hope that at the next lunch, which is to be on March 15, some time may be allotted for general comment.

Road versus Rail. THE recent dividend declarations of the five great railways bring forward in an acute form the position of the railways. For a great number of years the earnings have been steadily declining, and all the stocks have shown year by year a marked depreciation in value, but the ordinary stocks have descended to incredibly low levels. As the railways can by no means be dispensed with, they cannot be allowed to "go under" but something must be done, and done quickly, and although the

question of the respective burdens of rates and taxation imposed on rail and road transport is an important question, it does not appear to us to be the real question. The main question is, should not there be a correlation of forces between the two classes of undertakings? The railways are the most suitable medium for long and heavy haulage, for which the roads are entirely unsuitable. Haulage blocks traffic and imposes an undue wear and tear upon the roads, and if speed is to enter into the competition, as in conveying perishable merchandise long distances in a hurry, it adds to the dangers of the roads. The fact is often lost sight of that the railways own their own lines, having acquired the land at great capital expense, whereas the roads are not the exclusive tracks for motor transport, however much that form of transport is called upon to pay for their maintenance. The railways, on the other hand, are also heavy ratepayers, and by no means escape that contribution; and further, they are statutory undertakings under statutory obligation, from which road transport is to a great extent free. But, as we have said, the main point is, Are the railways to be allowed to collapse? A full inquiry should be instituted by the Government into this important question, and in the course of that inquiry the adjustments now the cause of dispute could well be taken into consideration and dealt with.

Liner Decoration.

ARCHITECTURAL comments on British liner decoration have been outspoken. While machinery and equipment were modern, indeed ahead of the times, British shipping firms still clung to stylistic decoration, giving as their excuse the arguments that passengers afloat preferred not to remember the disabilities of the sea and tended to forget the movements of the vessel in beholding the stable surroundings of a baronial banqueting hall or Turkish Court. Moreover, said the shipping directors, so-called "modern" work dates within ten years, while the "periods" remain unwithered. In classifying new work as "modern" there is a real danger of branding it with a stylistic hall mark; we would far rather see contemporary

Labour Exchange, Linz.

(*See page* 384.)

Mozarteum, Salzburg.

(*See page* 384.)

decorative schemes described as marine architectural embellishments, intended to carry out the functions and construction of the ship. Such a programme would not date, and would be based on facts rather than affectations. It is therefore encouraging to read that the new motor vessel, *Georgic*, built at Belfast for the White Star Line, has not been tied to stylistic convention. Artists, we are assured, have been given a free hand. So far excellent, and we only hope that the artists have approached their task from the point of view of a ship and not a "floating hotel." It is difficult to distinguish among perfervid lay Press reports, and we hope that we have been misinformed by the enthusiastic reporter who tells us that: "One of the most notable features is the tourist class smoke-room, modelled on an English farm-house of the 16th century, in half timber and rough plaster, with tiled floor and antique furniture." If this description be correct let us anyhow be thankful that the model farm-house has now descended from first to tourist class, though the good taste of the latter passengers is likely to be more sensitive than that of the millionaires or the Hollywood ladies enjoying the expensive suites.

Further Church Destruction.

A FURTHER destruction of old churches is proposed, this time at Lincoln, York, and Exeter. At the present time an Ecclesiastical Commission is being held at Exeter, where seven churches are marked for demolition. Three of these churches come within the city walls and are built of Devon red sandstone, which harmonises so beautifully with the good red earth of Devon. Two of these churches (St. Laurence and St. John's) stand in main thoroughfares — High-street and Fore-street — sturdy and picturesque little churches which are admired by all, and an attraction to visitors. The main attractions of the City of Exeter are its cathedral, churches, Guildhall and old houses, and because of these it draws visitors from all parts of the world. Why destroy the city's historic buildings? The upkeep of these small churches must be small. What is the reason of this desire for their destruction? Will the new structures be improvements? We hope so, but too often they are buildings of a character which would be more suitable for a seaside resort than an historic city. Perhaps on the site arises a multiple shop of one mould, no matter what character the city or town possesses. America is ever ready to acquire for re-erection that which has stood for generations here, which we are so eager to destroy.

Differential House Rents, Cambridge.

A CAREFULLY worked out scheme of differential rents is now in operation at Cambridge. It is only applied to eighty tenants moved by the Public Health Committee from insanitary or defective or overcrowded homes. No preferential rent is allowed to over 1,200 families housed by the Housing Committee, whose rents are calculated in accordance with the Housing Act of 1924. But the Public Health Committee considered that some of the tenants they wished to rehouse would be unable to pay normal rents. They therefore obtained leave in 1929 to allow a rebate of rent to those tenants who were able to prove their inability to pay the normal rent, thereby anticipating the policy of the Housing Act, of 1930. Of the eighty tenants, approximately one-half have obtained rent-reductions under the formula, varying from 1s. to 5s. per week, for houses rented at from 6s. 9d. to 8s. 3d. This rebate has the effect of increasing the rate burden from £3 15s. per house, as contemplated by the 1924 Act, to over £7. As this scale appeared to be unduly generous, it is to be modified. After April 1, only a man employed full time, earning the local wage of a labourer, and having four or more children, will be entitled to a rent allowance. Consideration is given to the income of all persons living in the house, to rates and to insurance, and the incomes are assessed quarterly. It is hoped in time to bring the tenants gradually under the same conditions as the ordinary housing tenants of the Corporation.

Gymnasium Hall, Salzburg.

(*See page* 384).

GENERAL NEWS

An Appointment.

Major W. H. Robinson, formerly architect for Education Buildings, who was appointed Acting County Architect of the Kent C.C. from May, 1930, has been appointed County Architect at the same remuneration.

R.I.B.A.

The annual dinner will take place on Friday, April 8, at Claridge's Hotel, Brook-street, W.1.

The annual conference of the R.I.B.A. and Allied Societies will be held in Manchester from June 15 to 18, 1932.

Housing in Chelsea.

A resolution that the Chelsea Borough Council should be asked to acquire by agreement or arbitration three acres of land in the borough, two for working-class houses and one for recreational needs, was carried at the annual meeting of the Chelsea Housing Association. The land, which is not far from Cadogan-square, is part of a site of over ten acres.

A New Found Pyramid.

It is stated that a pyramid, hitherto unknown, has been discovered by Professor Selim Hassan, about 300 yards south of the Great Pyramid at Gizeh, and slightly west of the Sphinx. The new pyramid is said to be slightly smaller than the others, and different in construction, the blocks employed being larger than those in the Great Pyramid. One face of the pyramid is cut out of the solid rock, and shows false doors cut in the surface, a novel feature in pyramid architecture.

Royal Academy Summer Exhibition.

The days for receiving works for the 1932 Exhibition have been fixed as follows:—Water-colours, pastels, miniatures, black-and-white drawings, engravings and architectural drawings: Thursday, March 24; oil paintings: Saturday, March 26, and Tuesday, March 29; sculpture: Wednesday, March 30. Reception hours, 8 a.m. to 10 p.m., except the Saturday, 8 a.m. to 2 p.m. Not more than three works may be sent by any one artist. Labels and forms can be obtained, during the month of March only, from the Secretary, Royal Academy of Arts, Piccadilly, W.1, accompanied by a stamped and addressed envelope. The Exhibition opens on Monday, May 2, and closes on Saturday, August 6.

Town and Country Planning Bill, 1932.

The National Housing and Town Planning Council is holding an important conference on the Town and Country Planning Bill in the Central Hall, Westminster, S.W.1, at 2.30 p.m. on Friday, March 4. The conference will be attended by a large number of delegates from local authorities in London and the home counties and from the various national associations interested in town and country planning. The circumstances in which the conference has been called are briefly that the Town and Country Planning Bill, 1932, was read a second time in the House of Commons without a division on February 2, and was committed to Standing Committee A. Unfortunately, there is fairly strong opposition to the Bill on the part of certain members of the Standing Committee. In particular, the powers relating to the planning of built-up areas and the controlling of rural areas are in danger of being considerably limited, and it appears that the Minister of Health has undertaken to grant substantial concessions under Clause 6, with a view to meeting the wishes of those who are opposing the Bill. This action may lead to demands for some undesirable modification of the provisions contained in subsequent clauses of the Bill. The conference has been called for the purpose of considering the whole situation regarding the Bill and deciding what action in the matter may be appropriately taken.

The council of the London Master Builders' Association, at its meeting on February 18, unanimously approved the principles involved in the Town and Country Planning Bill.

REDUCED COST OF BUILDING

By G. FLINT CLARKSON, A.R.I.B.A.

Admittedly, building costs are at the moment extremely moderate; in fact, much below their true economic value. But the industry is naturally grateful that the London County Council have acted so promptly on the first report of the Steel Structures Research Committee of the Department of Scientific and Industrial Research, which will effect a very considerable saving in building costs, whatever are basic costs. Naturally, the actual percentage reduction will vary with the varying costs of the relative materials and labour costs involved and the type of building.

Taking, as an example, a steel-framed block of flats, the reduction in cost at the present relative values of steel, brickwork, fire-resisting floors, excavation and mass concrete should be slightly over 8 per cent. For an office building the saving will probably be slightly less, as the amount of brickwork would not be so considerable. The loads on the foundations will, however, be more concentrated, and so benefit from the new rules; and owing to floor spans having a longer average, the reduction in cost due to the lighter loads allowed should compensate for any saving that would be effected in brickwork in the flats, even when an allowance of 20 lb. per foot super for possible partitions is taken into account, an allowance that would probably also have to be made, at least in some instances, in the design of the floors in the residential buildings.

Probably the reduction in costs in a warehouse building would only amount to half or two-thirds of that in a block of flats. The steelwork bears a larger proportion to the total cost, but although a floor load of 200 lb. as compared with 224 lb. is now allowed, this reduction is only 11 per cent., as compared with 43 per cent. for residential buildings and 46 per cent. for offices, after an adjustment has been made for the heavier load now required on the ground floor of such buildings from that considered adequate on the upper floors. Considering the relative values of various trades in the steel-framed block of three- or four-bedroom middle-class flats, as they were a year or so ago, we find that ¼d. a foot cube of the building should be saved on the cost of the steelwork, 0.6d. on the brickwork, ¼d. on the floors and roofs, and ¼d. on the foundations, the above figures being based on the assumption that for each cubic foot of contents in the building 1.75 lb. of steel, 0.017 cubic feet of brickwork, 0.02 yards super of flooring or roof, and 0.003 yards cube of concrete and excavation are used. Naturally, these proportions vary in each building and are dictated by many varying circumstances and conditions, although the above is a general summary that the writer has found useful and reasonably accurate for unhampered building operations. Naturally, should the cost of steel rise, as is probable, the actual gain on this section of the building operations will be greater.

If approximate estimates are to be made on a cube basis, great care has to be taken to weigh up all the varying conditions affecting the particular proposition. It would appear, however, that after assessing what seems an appropriate rate on the basis of past experience, under the new regulations it should be possible to reduce the rate selected by 2d., or 8 per cent., which will form an inducement to undertake building operations in competition with structures erected under the more irksome conditions heretofore in force.

COMPETITION NEWS

New Church, Leeds.

Mr. F. L. Charlton, A.R.I.B.A., of Leeds, has been awarded first place in a competition for plans for a new church in Leeds, for the Ripon Diocesan Church Forward Movement.

OBITUARY

Alan Cameron Walker, A.R.I.B.A.

It is announced in the R.I.B.A. Journal that Mr. Alan Cameron Walker died suddenly in Hobart on December 12. He served his articles with Mr. Henry Hunter before coming to England to study under Professor Roger Smith at University College, where he gained a scholarship and certificates of honour. Returning to Australia, he practised first in Melbourne and later in Hobart, where he was associated with Mr. Douglas Salier and Mr. A. Johnson.

Among the buildings in Hobart which Mr. Walker designed are the General Post Office, the Customs House, the Technical College, the Public Library buildings and alterations to the A.M.P. Society and Tasmanian Museum. He was also responsible for the National Mutual Assurance Company offices and several of the largest buildings in Launceston were designed by him. Among his last works was the recently erected cloisters at St. David's Cathedral.

Mr. Walker was the first President of the Architects' Registration Board and a member of the Tasmanian Chapter of the Royal Australian Institute of Architects. He was for 25 years President of the Tasmanian Arts and Crafts Society and was a keen and clever craftsman in all metals; his display of silver work at the recent Art, Historical and Antique Exhibition, of which he was chairman of the committee, was very greatly admired.

We reproduce on page 378 a photograph of a cathedral processional cross, in silver, which was designed and made by Mr. Walker. Mr. Maurice B. Adams, who kindly lends us this photograph, writes as follows:—"It is a capital design and a little out of the ordinary. Few architects are craftsmen enough to do a job personally like this, however much they may talk about the need of the designer being the actual artificer.

"I knew him as a young unmarried man. . . . The last occasion of excursioning with him was on the Devizes A.A. reunion of the old excursionists through Wiltshire."

John Dunn, F.R.I.B.A.

A correspondent adds to our notice on the late Mr. John Dunn, which appeared in our last issue, the following:—

"Mr. Dunn was for over fifty years architect for the Duke of Norfolk's London estate. He rebuilt the Duke's "Arundel Estate," Strand, comprising Norfolk-, Arundel-, Surrey- and Howard-streets, the Strand to the north of this estate, and the approach road off the Victoria Embankment to the south. Other works he carried out were additions to Brettenham Park, Suffolk, for Sir Courtenay Warner, Bart., and the laying out of the Warner Estate at Woodford, Walthamstow and Leyton for the Warner Estate, Ltd. The first part of the rebuilding of the "Arundel Estate," Strand, that facing the river, was in the Gothic style. Later this style was abandoned for Renaissance, and later still for almost pure Classic. Four hotels were included in the rebuilding scheme: Horrex's Hotel, Norfolk-street, Strand; the Howard Hotel, Norfolk-street; the Norfolk Hotel, Surrey-street; and the Arundel Hotel, Arundel-street. The remainder of the estate consists chiefly of insurance and other business and professional offices."

We wish to correct a statement made last week that Mr. Dunn had carried out laying-out of property at Walthamstow for the Law Land Company. We are informed that this company has never had interest in property at Walthamstow, and our reference probably related to the work, stated above, carried out by Mr. Dunn for the Warner Estate.

C. C. Paine.

We regret to record the death, at the age of 90, of Mr. C. C. Paine, who, in partnership with Mr. G. B. Jordain, founded the firm of Messrs. Jordain and Paine in 1855. Mr. Jordain died in 1876. For over 50 years Mr. Paine was actively engaged in building operations and the development of estates in various parts of north and north-west London.

CORRESPONDENCE

Lethaby.

SIR,—I have read with very great interest and pleasure your report of Sir Reginald Blomfield's lecture on Lethaby and also your able leader. It is impossible to estimate Lethaby's influence on our time or on the future, because in the majority of cases his deductions were based on logic and pure reason, together with a deep insight into the spiritual origins of things in the realms of art, and for these reasons his sayings were accepted as general truths almost as soon as they were expressed. Thus his greatness is in danger of being underestimated. Most of our leading writers and lecturers to-day are using Lethaby's ideas, and in some cases his very words, and fondly believing that they are expressing original truths.

Let me give two instances—one quoted from a recent lecture given by an American, and another by a well-known architectural writer :—

"Art based on theories is a dead art."

"Everything worth saying about architecture has been said time and again, with the exception of the statement that 'it is a pity the term was ever invented.'"

If we had ten men in Britain to-day of Lethaby's stamp, architecture would once again be in its true place in the church, the cottage and the market-place.

WILLIAM DAVIDSON.

Unemployment in the Architectural Profession.

SIR,—The statistics which the Board of Architectural Education of the Royal Institute of British Architects recently presented to its Council contained information which may be interesting to your readers, having regard to the fears expressed in some quarters that the architectural schools are overcrowding the profession and contributing to the present-day difficulties of unemployment.

There are in the United Kingdom ten schools providing a full-time five-year course recognised for exemption from the R.I.B.A. Final (Associateship) Examination, and nine providing a three-year course only, which exempts from the Intermediate Examination. In these schools there are 1,389 students, of whom 1,253 are men and 136 are women. Allowing for a wastage of 5 per cent., this means an annual contingent of trained students entering the profession of about 264. The total membership of the R.I.B.A. and its Allied and Associated Societies in the United Kingdom is about 8,500, and outside these are probably some 4,000 more who to a greater or less extent practise as architects.

It is clear, then, that even ignoring the natural growth in numbers due to the necessities of an increasing population, the architectural schools are merely supplying a nucleus of trained men to the profession and that overcrowding, if it exists, arises from the continual entry of imperfectly trained persons with whom the schools have had nothing to do. In actual practice the schools act as a check on entry to the profession because of their requirements as to age, ability and general education.

The architectural profession and the building industry are particularly affected by the campaign for economy and the consequent restriction of building which the present financial situation has caused. To endeavour to correct these things by a reduction of the numbers of either architects or craftsmen who are being definitely trained would be unwisely to prejudice the future.

The Board of Architectural Education encourages the maintenance of a high standard in the associated schools and believes that, when more favourable national conditions return, the quality of the buildings designed by the school trained men will be a full justification of its methods.

W. H. ANSELL, Chairman,
Board of Architectural Education.

National Economy and the Building Industry.

SIR,—In his letter in *The Builder* of January 22, Sir Edwin Lutyens suggests that unemployed architectural officials should be given work until such time as the Government resume their building programmes. During recent years there has been very heavy public expenditure, which has seriously affected private enterprise. Public authorities throughout the country have carried out extensive building schemes, and the preparation of plans, etc., gave employment to a large proportion of those who received architectural training. It is amazing that anyone of average intelligence expected this artificial prosperity to continue.

Whether or not the building works carried out by public officials were necessary or desirable is immaterial at the moment. If these works had been carried out by practising architects there would be less distress and overcrowding in the profession to-day. If, on the other hand, these works had not been carried out, and all official humbug and restrictions done away with, the probability is that out-of-work practising architects would have been employed by those engaged in private enterprise.

Architectural officialdom has done much harm to the profession, and, especially as a report will shortly be issued relating to the costs of these public works, which will doubtless further depreciate the value of architectural services, it would be well to let the public know the facts in matters of this kind. Perhaps when the eviction of officials is completed, architects will combine and get an organisation which will really protect their interests. Meanwhile, I fail to see how our present difficulties are likely to be lessened by assisting ex-officials in the hope that they will again get work which should be done by practising architects. J. D.

[We think our correspondent is mistaken in assuming that Sir Edwin Lutyens referred to "unemployed architectural officials." He mentions specifically architects, architectural assistants, builders, operatives and those normally employed in the manufacture of building material.—ED.]

THE ELECTRIC LIGHTING CONFERENCE

By HUMPHRY DEANE.

ONE of the most satisfactory advances that has been made in recent years is in electric lighting, and one of the most interesting points about this is that it has been brought about at last by the engineer, the architect, and the craftsman working together; proving that, for all their bickerings, good results can be obtained by this collaboration. It was, however, some time before the architect and the craftsman got to grips with this new power.

The Electric Lighting Conference, which is to take place at the Lighting Service Bureau on March 2 and 3, should be extremely interesting, not only in showing modern methods of lighting, but in explaining some of the fundamentals on the scientific side which have to be grasped in giving consideration to the subject.

For some time after the introduction of electric light, the only advantages realised were the switching on and off, and the cleanliness. Old gas brackets (luckily tubed already) were threaded with flex, oil standard lamps and those suspended over the Victorian mahogany were converted, and so forth. The engineer himself, presumably, provided the opal shade in green or white, an unpleasant but in many cases an economic form of lighting. The housewife then took a hand, and draped these opal shades with red silk petticoats (incidentally obliterating nearly all the light).

Then designers came along, and realising the essential ugliness of the Victorian gas bracket, and having, presumably, no particular ideas of their own, went back to still earlier epochs and produced the candelabra, the candle sconce, and the candlestick type of fitting, to which eventually the engineer supplied a somewhat more suitable lamp.

Now, there is a great deal to be said for the candle type of fitting. Real candle light is still one of the prettiest ways of lighting a room, and the fittings themselves are generally graceful and pleasant. The electric candle is not at all a bad substitute, because it divides up the room into various points of light, none of which is individually too powerful to look at with comfort.

But the first real effort at using electricity as a new medium of lighting was the indirect method from lamps hidden on the top of an architrave and reflected on to the coved cornice, and one of the first examples of this must have been in the supper room at the Empress Rooms, Kensington, which was done certainly thirty years ago.

Then, also, there was indirect lighting from metal bowls. A few of these have been about for many years, but they were outnumbered by the semi-opaque alabaster and glass bowls. Now, though the actual form of these bowls is changing, it is on the systems of indirect and partially indirect lighting that modern experts are working. Even when a comparatively brilliant general lighting is required, the source of light is placed much higher, the lamp itself is hidden and the harshness of the rays is diffused by the fitting.

But it is in private houses, hotels, theatres and such like that the modern methods of using this indirect lighting get their fullest play. Cornice lighting still obtains; the lighting of curtains from behind the pelmets, the secreting of lights in niches and recesses, lights reflected from or through various glazed surfaces, lights in glazed reveals, and so on—these are the improvements which have been made and which will be demonstrated among other subjects during the programme of the Lighting Conference.

Another branch which has made some progress is that of illuminated signs and other forms of advertisement lighting. Generally speaking, these seem to me to be spoilt by surrounding competition; the fear of being outdone by their neighbours leads frequently to the bright and dazzling lights which can only be looked at with safety through smoked glasses. Typical of this have been various outbursts, in a ghastly green-white light, outside the London Pavilion, which were literally impossible, for people with normal eyesight, to look at direct.

I am not going to discuss here the banning of all such signs, but it does appear that, even in the advertiser's interests, to get any benefit from them at all they should be controlled both in number and brilliance. The two most effective advertisements of this type I know are (1) the excellent Jantzen lady doing her graceful dive out of the sky in the Great West Road (this may be enhanced by the knowledge that it signals the end of that dreadful and dreary stretch); and (2) the illuminated outline of Kemp's biscuit factory overlooking and reflected in the Welsh Harp. Both of these are seen from a comparative distance, which reduces any dazzle, and neither is subjected, at present, to any competitive surrounding lights.

It is a pity that some conference cannot be arranged on street lighting. If the engineers have now settled the height and type of street lamps most suitable for the purpose, designers might be called in on the subject of the standards. No doubt the appalling monstrosities with which the various councils are decorating the streets are carefully thought out as to construction. They are ingeniously assembled, and the bases conveniently hold the time switching and ratchet apparatus, but there can be no reason for the appalling design and ornamentation of the standards themselves, and, considering the vast quantity of these lamps all over London and other cities, it must be worth while to get them properly designed.

UNEMPLOYMENT IN THE BUILDING INDUSTRY

[We have received from the R.I.B.A. the following précis of the case put by the deputation to the Minister of Health on February 4.]

The deputation represented the National Federation of Building Trades Operatives, the National Federation of Building Trades Employers, the Building Materials Manufacturers' and Suppliers' Committee, the Operatives in the Clay Industry, the Chartered Surveyors' Institution, and the Royal Institute of British Architects. They desired collectively, on behalf of the building and allied industries, to put before the Minister of Health, and, through him, before the Government, the serious position in regard to unemployment in the industry, which had arisen, and which was a cause of grave anxiety and loss to all the bodies represented.

The Operatives' Federation reported that during the months of September and October last, and the subsequent period to the present time, there had been an enormous increase in the number of men unemployed. The amount spent in unemployment pay direct from the funds of the Unions had grown in this period to an extent hitherto unknown. It was reported that the number recorded in the January *Ministry of Labour Gazette* as *wholly* unemployed in the building industry exceeded that in any other industry.

As the result of inquiries made by that Federation from all parts of the country, they have estimated that various building and public works, totalling a figure of the order of £50,000,000, were being curtailed or delayed. While such estimate included works in various stages of preparation, some of which would not in any case mature immediately, and while the deputation did not wish to put forward any figure as representing the amount of work delayed, it seemed clear that there had been an abandonment or postponement of a very large volume of work. This was substantiated by the rapid increase in unemployment, not only in the building industry itself, but in the materials industries and the professions represented, which prepared work for the building industry and supervised its execution. The total numbers of unemployed in the building and public works contracting industries in June and December in recent years had been as follows:—

BUILDING.

	June.	Dec.	Increase.	June.	Dec.	Increase.	Total increase.
1929	70,237	139,219	68,982	29,804	41,555	11,751	80,733
1930	106,002	188,609	82,607	41,060	58,299	17,219	99,826
1931	154,906	245,673	90,767	59,244	96,463	37,219	127,986

There were two features in these figures to which the National Federation of Employers wished to draw special attention, namely,

(1) There had been a considerable positive increase in the unemployment in these industries during the past two years;

(2) On the top of this positive increase there had been an increase during the past half-year which had been in excess of the average seasonal fluctuation of the two earlier years to the extent of 37,706 men

The deputation wished to point out that the amount of unemployment was not due to any recent abnormal increase of numbers in the industry. Since 1928, while the general numbers of insured workers had increased by 7.4 per cent., those in the building industry had only increased 5.1 per cent. Moreover, the Minister was reminded that in 1924 the industry, at the special request of one of his predecessors, agreed to open its ranks for the purpose of dealing with an extensive housing programme.

Whatever might be the contributory causes, the deputation wished to draw the Minister's attention to:—

(1) The grave increase of unemployment in the building and constructional industries during the latter half of 1931;

(2) Reasons for fearing that the full effect of measures adopted to secure economy had not made itself evident as yet in the industries in question;

(3) The serious doubt in their minds as to the economy of abandoning and postponing works which were necessary for the health and efficiency of the community, and thus throwing upon the Unemployment Insurance Fund men belonging to two home industries using in the main British-made materials, particularly when the unemployment insurance fund had to be kept going by Government grants of money;

(4) The effect which such excessive, and in some cases almost panic, curtailment of important home industries, particularly when displayed by local authorities, must have in destroying general confidence and stability.

It was believed to be common ground that the restoration of confidence was a condition precedent to a revival of industrial and commercial activity. The deputation recognised the importance of maintaining the balance of trade; and they wished to draw the Minister's attention to the fact that such balance was very little affected by the building industry. The materials used were in the main of home production for home consumption. The amount of material imported was small, and could be further reduced, particularly if Empire timber is used, so that the need for imports could be reduced to a very small amount which might well be balanced by exports of building materials mainly produced for home consumption.

The manufacturers and suppliers of building materials agreed with the other parties to the deputation—that it was more in the interests of economy to afford employment by proceeding with useful and much-needed schemes, than to pay out large sums by way of unemployment relief from which there was no return. They reported that in consequence of the wholesale abandonment of building schemes numerous works had already been closed down entirely, while short-time working was very widespread. Unemployment had reached formidable proportions, although the full effect of the economy measures had not yet been felt. Existing contracts were rapidly drawing to a close, and there was little work in view to take their place.

PUBLIC WORKS.

The effect of the economy measures was the more acutely felt in the materials industries because of the extensions to works and plant which the manufacturers had undertaken during recent years in response to appeals made by successive Governments for increased outputs to meet the country's housing needs. Any falling-off in the building programme was therefore seriously felt: and combined with the general slump in building and public works consequent on trade depression must lead to serious unemployment. This was shown by the following table:—

BRICKS, TILES, SANITARY WARE, DRAIN PIPES, ETC.

Date.	Estimated Number of Insured Persons.	Number Unemployed.	Percentage Unemployed.
Nov., 1924	70,490	5,653	6.9
Nov., 1927	87,160	9,402	10.8
Nov., 1928	81,140	11,050	13.6
Nov., 1929	81,990	9,597	11.7
Nov., 1930	84,680	14,663	17.3
Sept., 1931	84,680	15,479	18.3
Nov., 1931	87,600	17,575	20.1

CEMENT, LIME, ETC.

Nov., 1924	16,020	1,112	6.9
Nov., 1927	19,600	1,598	8.2
Nov., 1928	19,000	1,596	8.4
Nov., 1929 ...	19,480	1,907	9.8
Nov., 1930	19,090	2,779	14.6
Sept., 1931	19,090	3,117	16.3
Nov., 1931	17,920	3,908	21.8

As the materials used in the production of the great majority of building materials were British throughout, the great fall in demand necessarily adversely affected other British industries, which supplied plant, equipment, stores, power, etc. Vast quantities of coal were consumed, not only for power purposes, but also directly in the manufacturing processes. This was particularly so in the production of all clay building materials. The transport industry was another British industry which suffered severely from depression in the materials industries.

The Chartered Surveyors' Institution had special opportunities of observing the trend of the building industry. They were convinced that the full effect of the present curtailment had by no means yet been felt. For some months past the number of architects' and engineers' unemployed draughtsmen had been increasing, and this inactivity was now communicating itself to surveyors. They, together with builders, were still engaged in completing works already put in hand before the curtailment took effect. In the near future it was feared that these works would be completed, and that the extent of enforced idleness would thus be increased. They desired to point out that as the building industry was to some extent a seasonal one, prompt action was needful, for even if a forward move were made immediately, some time must elapse before drawings could be prepared and contracts completed. It was pointed out that the cost of building was now lower than it had been at any time since 1920, and that it was therefore an economical time to build.

The deputation fully recognised that it was not only, and possibly not chiefly, to the action of public authorities that the extent of curtailment was due They realised that of approximately £250,000,000 worth of annual building probably about £50,000,000, or one-fifth, might represent that for which public authorities and Government departments were directly responsible. As regards this portion, however, they had reason to fear that the general demand for economy had been widely misunderstood. It seemed evident, for example, that some local authorities had read into the circular issued by the Ministry of Health last September more than it was probably intended to convey. For example, on the occasion of a recent deputation to the Lord Mayor of Birmingham on this subject, the city surveyor was reported to have said "that firms were not extending their premises at the present time, and his department had fewer plans to deal with than for a long time. The Public Works Department were doing all they could to encourage building. Until the Government took a different view it did not seem to him the City Council could go very far." The Lord Mayor added, "My sympathies are with you, but we are bound to some extent by the Government circular. You know the national position is very serious, and we have to trim our sails accordingly. Pending any Government direction, I think we must let the matter rest here for the present." The point made by the city surveyor as to the great reduction in the number of plans submitted was confirmed by the monthly returns of such plans issued by the *Labour Gazette*. And curtailment in the preparation of plans for the future was proved by the unusual increase in unemployment among architects, which had compelled the Royal Institute of British Architects to take the matter up, to establish a scheme by which architects in employment were asked to contribute weekly sums for the support of those out of employment. In order that such funds might not be wasted in maintaining men

doing nothing, the scheme included the provision, as far as possible, of useful work in the making of civic surveys and the investigation of problems connected with the application of town planning to built-up areas, and slum clearance.

If, as they ventured to hope, the Minister should be mainly in agreement with the deputation that the building industry was one that should be kept going in the interests of general industrial stability at home, they ventured to ask the Minister of Health, and the Government through him, to make an emphatic declaration of their views and wishes in regard to this matter. Such a statement would remove any misunderstandings that might have arisen in the minds of local authorities, perhaps through receiving a circular at a moment of some national sense of dismay; and would also make clear to private persons or firms who might be holding back from building, the importance of carrying on.

[The Minister's reply to the Deputation was published in our issue of the 12th inst.]

THE EVOLUTION OF THE SAILING SHIP

A MEETING of the Architectural Association was held on Monday at Bedford-square, W.C., the President, Mr. A. B. Knapp-Fisher, in the chair, when an address on "The Evolution of the Sailing Ship," illustrated by lantern slides, was given by Mr. R. Minton-Taylor.

The preliminary business included seven nominations, eight elections and the passing of a vote of condolence with the relatives of the late John Dunn.

Introducing the lecturer to the audience, the President said that Mr. Minton-Taylor had had an interesting career, varying from ships to theatricals, and including forty years of architecture, serving the London County Council, from which work he had just retired. To study his subject he had lived for some time in a slum in Somers Town, and, later, when he had erected some flats on the Millbank estate, he had gone to live in one of them to gain further experience.

Mr. Minton-Taylor, in the course of his lecture, traced the evolution of the ship from the most primitive times. The earliest record of anything of the kind, he said, was in Egypt about 6,000 B.C. Reed bundles were made up in the shape of boats that floated on the water. The ark of bulrushes in which the infant Moses floated on the Nile was probably a craft of this kind. The earliest record of an Egyptian sea-going vessel was about 2600 B.C. Continuing, the lecturer traced the craft of shipbuilding onwards through Phœnicians, Greeks, Romans and Vikings, then through the time of Alfred, the Middle Ages, Elizabeth and the Stuarts to Nelson, and at last to our own day. Every stage was illustrated by interesting pictures of the ships of the period he was referring to. To-day, he said, there were no longer any British-owned sailing ships. The sailing ship had not entirely gone from the sea, and some were now coming here from Australia with wheat; but they were foreign-owned and manned by Scandinavians and Finns. One characteristic of the British-owned sailing ship had been its exceedingly fine figure-head; no other nation had it equally beautiful.

The Hon. H. A. Pakington, moving a vote of thanks to the lecturer, said the evening had been a rather melancholy one for a sentimentally-minded person like himself; but he must not spend his time regretting the past. To-day landsmen were making their houses look like ships, and seamen were making their ships look like houses. On board a modern liner one could breakfast in a room modelled on Balmoral Castle, smoke a cigar in another modelled on the Versailles Hall of Mirrors, and go to church in a third modelled on Saint Peter's at Rome. All this, he was told, was to make the passenger feel at home, but he did not want to feel at home when on board ship. We ought to be able to develop an æsthetic of the sea in keeping with modern materials and methods. There had been such an æsthetic in times gone by. The old dockyard carpenters had had a manner of their own, and felt subconsciously that that style or manner was in keeping with curving billows and bellying sails. They did not copy delicate drawing-room styles. The influence of Robert Adam had been entirely absent from the Battle of Trafalgar, where it simply would not have done. He had seen the battle cruiser "Tiger," the most beautiful modern ship built—perfectly beautiful and perfectly functional, with three great funnels equally spaced rising vertically from the upper works and giving the same sort of effect as the columns of a primitive Doric temple. One felt the designer of that ship was a naval architect. He had put on the extra touch of emotion, sentiment, loving care and ordered thought that turned a machine into a thing of beauty and a building into architecture.

Mr. Laurence A. Turner said he was interested in the subject from the wood-carver's point of view. Vessels of the time of Henry VIII interested him most, especially the "Sovereign of the Seas," with its figurehead representing King Edgar trampling on the seven kings of the heptarchy. The carvers had developed a style of their own which had not been copied in any other way, and at the beginning of his career he had been used to look round second-hand shops to see if he could not pick up some of the old ship carver's tools. These had been very large and made of magnificent steel.

The vote of thanks was heartily accorded, and the lecturer briefly replied.

WATERLOO BRIDGE

We have received from the R.I.B.A. the following copy of a letter on the subject of Waterloo Bridge which the President, Dr. Raymond Unwin, has addressed to Mr. Ernest Sanger, Chairman of the London County Council :—

DEAR SIR,—I wish respectfully to convey to you the opinion which I believe to be general among architects and town planners that the proposal now before your Council to remove Waterloo Bridge and to build a new one, providing for six lines of vehicles, is justified by no sound reasons.

Unfortunately, when the Advisory Committee which you invited to consider the Charing Cross Bridge problem met in the summer of 1930, no comprehensive plan for the future development of London, or for dealing with its growing traffic congestion, was available, and the Committee had to report: "The absence of town planning schemes in respect of built-up areas has prevented us from having the advantage of knowing or considering the conditions likely to apply in the affected areas or of enjoying any assurance as to what development will in fact take place in such areas."

It is but too evident that only on the basis of such a plan could the problems of the bridges and their approaches be properly solved. Certain conclusions relative to the question of Waterloo Bridge were, however, made clear from evidence before the Committee, and may be gathered from the report.

In reference to the present proposals I desire to draw attention particularly to the following considerations :—

(1) No widening of Waterloo Bridge will serve the purpose or take the place of the Charing Cross Bridge, whatever may be its ultimate position.

(2) The Committee reported that "In the case of Waterloo Bridge the limiting factor is the volume of traffic that can be passed through the Strand intersection."

(3) Traffic crosses a bridge without check from standing, stopping, turning or crossing vehicles, which are the main causes of obstruction to free running on roads.

(4) Waterloo Bridge at its present width provides running space for more vehicles than could be passed across the Strand without serious delay to east and west traffic.

(5) The widening of that bridge to take four lines of vehicles instead of three, may be justified for convenience and safety and for standing space at the ends, rather than for the increase in the number of vehicles which could then cross it.

(6) The conditions and space necessary to pass the traffic from a bridge across the Strand were laid down by the traffic experts before the Advisory Committee with definiteness and emphasis; and provision was made in the adopted scheme at great cost to satisfy them. No similar possibility for satisfying these conditions exists at the Strand crossing from Waterloo Bridge; nor has any practicable means of providing them yet been suggested.

(7) The provision of width for six lines of vehicles, therefore, would be a waste of money, and would do more harm, by increasing congestion in the Strand, than it could do good to the cross-river traffic. On the other hand it is, I believe, well known that :—

(a) There is no serious difficulty about underpinning the existing bridge and making it secure.

(b) It can be widened to take four lines of vehicles in more ways than one.

(c) These works can be carried out at a reasonable cost.

(d) On the other hand, the removal of Waterloo Bridge would be a very formidable operation. Evidence was given before the Royal Commission in 1926 showing that to remove the existing bridge before building a new one would cost about the same sum as the underpinning and reconditioning of the present bridge, and would take about four and a half years. After the outlay of this money and time there would be a clear sheet of water, but with the existing temporary bridge still standing, with its piers in line with the existing piers and in the way of any fresh spacing, and a new bridge still to be built. In the other case there would be a reconditioned Waterloo Bridge that would stand as long as can be foreseen. Moreover, if the work were done concurrently with the underpinning, the bridge could be widened at the same time by extending the piers to carry four lines of vehicles, at a comparatively small additional expenditure; possibly of the order of £100,000, which it is understood was about the cost of widening London Bridge.

(e) The reconditioning of Waterloo Bridge leaves open for the future the question of a further bridge at Charing Cross or elsewhere.

Under these circumstances it does not appear that any good traffic or other sufficient reason exists to justify the demolition of Waterloo Bridge, and I desire to urge most strongly that the bridge should be reconditioned; for not only can it then be made adequate for the traffic requirements, but such course is equally desirable on the grounds of economy, and because it would satisfy the wish, often emphatically expressed on behalf of the nation, for the retention of this great historic monument, architecturally related to Somerset House and recognised as one of the finest stone bridges in the Empire.

RAYMOND UNWIN,
President, R.I.B.A.

Three New R.A.s.

Three new Royal Academicians were elected at a general assembly of Academicians and Associates recently. They are :—

Sir Herbert Baker, A.R.A., the architect who designed the new Bank of England, India House, Aldwych, the Government Buildings in Pretoria, the Cecil Rhodes memorrial at Table Mountain, South Africa, and, with Sir Edwin Lutyens, the new Delhi. He is now 69.

Mr. W. G. de Glehn, A.R.A., painter of portraits and landscapes, who is 61.

Mr. G. Spencer Watson, A.R.A., portrait and figure painter, who is 62.

GERMAN AND AUSTRIAN ARCHITECTURE

Mr. E. J. Macrae, A.R.I.B.A., city architect, Edinburgh, recently gave a paper before the Edinburgh Architectural Association on "Impressions of Some German and Austrian Cities, with their Earlier and Recent Architecture." There was, he said, no doubt that during the last few years there had been in many European countries an enormous amount of building, some of which was, whether for better or for worse, at least different from what had gone before, and it was interesting to consider it in relation to the accepted traditional architecture of those countries. He was narrowing down his survey to Germany and Austria—with a peep at Prague in passing—an enormous field even then, and simply stating his own impressions of visits paid during the summers of 1930 and 1931.

In both German and Austrian Empires there was great prosperity with an immense development during the last third of the nineteenth century. In 1871 Berlin had a population of 820,000. It was now 4½ millions (practically the same as of Scotland), an area of 340 square miles (Edinburgh had 50), with extreme dimensions of about 30 by 25 miles, and it was planned for a future population of 9,000,000. In 1869 Vienna had 607,514, in 1900 2,031,500, though its population was now about 200,000 less; and Austria, as rearranged, had only 6½ millions, as compared with 30 millions before the war.

The Hohenzollern Empire came to an end with its Emperor's flight in November, 1918. In Vienna, the passing of the Hapsburg dynasty was as sudden if more tragic. In the "blue room" of the State apartments of the Schonbrun Palace a deputation asked the Emperor to hand over the kingdom. They went out and rechristened one of the principal streets of the Ring "November 12th." It was the beginning of a new era. A new outlook began in these nations, an emancipation of thought. Tradition was flung aside, everything challenged—life, social ideas, art, accepted conventions of all kinds.

One centre of interest became the "arbeiter," the working man, instead of the occupant of the Palace, and the Republic the chief patron of the architect. The education, the housing, the health, even the sport of the citizen became a first concern of the State. With all this there was a deification of efficiency, of mechanisation, a new cold logic applied to everything, an elimination of the superfluous. A few years later a stern economy dictated conditions of progress. No wonder if these somewhat conflicting ideas were reflected in the concrete expressions of art, in dress, in music, in painting and sculpture, and in architecture (and furniture).

The apostles of the new architecture, like le Corbusier, urged the creation of the mass-production spirit, the austere conception of art, the perfection of efficiency. To understand the impact of these new ideas or the people they must appreciate the difference between the peoples in those countries and our own. There a sense of orderliness and obedience to laws and regulations had been ingrained in their natures for centuries. One could not over-estimate the result of the use of the word "verboten" in public streets, open spaces, tramways, railway trains. Perhaps this paved the way for the obedience to the new gospels and helped to make possible the acceptance of the new expressions in architecture, perhaps compelled the working man to accept, for instance, the communalisations of services in his new domiciles, the immense concentration in barrack-like settlements.

If we examined the post-war architecture we found practically none following, at least consciously, old traditions. No attempt was made to harmonise with adjacent or existing work. The new frankly declared itself. New additions to the pompous classicism of the Technical High School in Charlottenberg, or the great museum at Munich, were in the boldest, most austere form. We understood how suddenly, but definitely, fashions changed, and how, even in building, the new spirit never liked to go back to precedent, once the new idea had been accepted; how, for instance, the early Perpendicular of Gloucester was "tacked on" the Norman with no attempt to smooth out the line of demarcation.

The great bulk of the new work was undoubtedly functional, simple, but on clean telling lines, frankly declaring its plan without any vestige of pomp or flamboyance. It was generally characterised by a new sense of scale and breadth, the masses being simple, the detail of less account, by plane surfaces, and direct construction, often a nakedness almost brutal in its completeness, a frank acceptance of the possibilities of ferro-concrete, particularly in regard to cantilevered surfaces with no apparent supports. In the present phase the curved lines of *L'Art Nouveau* of the early nineteen hundreds were as far away as the flamboyant tracery of the last phase of Gothic in France, from the rectilinear stiffness of the English Perpendicular.

Of extreme modernism, what might be termed freakish, there was not a great amount in relation to the total, but here, however, much as it shocked or surprised or intimidated, it was a deliberate "feeling after" something. If we could not appreciate the post-impressionists, the cubists, the futurists in painting, Matisse or Ganguin, or even Munch, if we did not understand Epstein or Eric Mendelsohn, we could at least try to find out what they were trying to get at. The distrust of the obvious, of the accepted, of tradition, was bound to produce results worth examining if vital forces were at work. We must remember, however, that modernist tendencies in architecture were not all post-War. Before that cataclysm, forces were at work which had kinship with the restless expansions which led to the War itself.

Looking at the question of the client in relation to the modern architect, the lecturer said, no artists, and architects in particular, could produce work which their clients would not accept and pay for. Some people would not appreciate a portrait of themselves by Augustus John, or a statue by Epstein or Moore, and many modern Continental buildings would not have been accepted here. He thought it would be found that the clients of the extreme type of modernist architecture were necessarily those whose buildings required to be an advertisement, and to have something new, bizarre, if need be, to arrest the public eye or suit individual whims, and so usually such buildings were theatres, or cinemas, shops, newspaper offices, or houses for people with modernist minds, and in these the architect could indulge his licence to amuse or shock or frighten the passers-by or his audience.

The clients, on the other hand, of the severe, simple, hygienic buildings were usually collective, the State or the municipality urging the making-up of public health arrears (hospitals, housing settlements, etc.), and other civic developments, *e.g.*, aerodromes, labour exchanges, sports stadia, or companies building huge industrial factories. Clients of this type must be able to recognise their buildings as such.

The lecturer then showed a number of slides, showing, first, characteristic features of each town, and following with illustrations of modern work. We reproduce a number of these, together with the lecturer's comments, which were as follows :—

Carl Legien, Berlin.—Bruno Taut's writings on modern architecture, said the lecturer, were well known. This huge settlement, the Carl Legien, of over 1,100 houses, was designed by him and built 1928-1930. The range of decks of liners and omnibuses had been almost an obsession with him, and perhaps explained the boldness of the design of the ends of the blocks. The excessive cantilevering was perhaps not quite satisfactory to the eye, and one might note, in passing, that most of them had horizontal cracks. The colouring was largely white, with other hues on the wall surfaces.

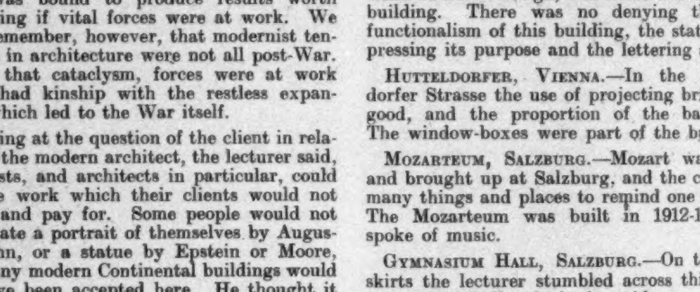
Labour Exchange, Linz.—The delightful little town of Linz, so beautifully situated on the Danube, and containing some awful churches of the Jesuit style and later, had on its outskirts some very good new buildings. The Labour Exchange was an example of clean balanced design, and made a fine corner building. There was no denying the fine functionalism of this building, the statues expressing its purpose and the lettering above.

Hutteldorfer, Vienna.—In the Hutteldorfer Strasse the use of projecting brick was good, and the proportion of the balconies. The window-boxes were part of the building.

Mozarteum, Salzburg.—Mozart was born and brought up at Salzburg, and the city had many things and places to remind one of him. The Mozarteum was built in 1912-14, and spoke of music.

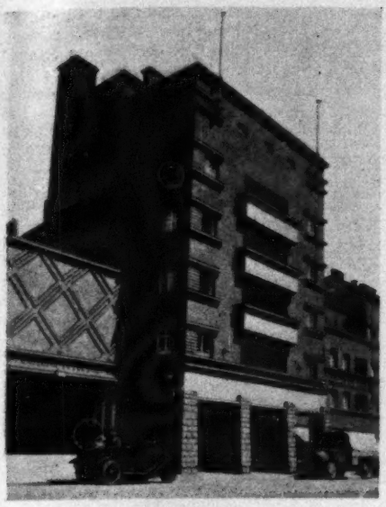
Gymnasium Hall, Salzburg.—On the outskirts the lecturer stumbled across this little gymnasium hall, which, he said, was of considerable interest. It was of brick washed with cement.

Newspaper Office, Salzburg.—Near the station, on a prominent corner site, was this very modern, but pleasant, building. The concave line was corrected to suit the corner by the convex line at first-floor level. (It was not easy to accept the sky-line figures at first.)



Carl Légien Housing Settlement, Berlin.

Herr Bruno Taut, Architect.



Housing Settlement, Hutteldorfer Strasse, Vienna: Central Feature.

"THE BUILDER" DEBATE

XLVIII.—ARCHITECTS AS COUNCILLORS.

SIR,—"Positive's" argument offers an extraordinary comment on local government. Architects must not act on councils because they are interested in the building trade, says "Positive." If this principle is to be accepted, then it must be carried through logically with all other trades and professions. I do not know which of these would remain eligible to represent their townsfolk. Apparently only those who have retired from active business, and I am very doubtful about these even, in that they remain ratepayers, and are, therefore, interested parties owing to the chief business of the council being the collection and spending of ratepayers' money. The point is absolutely indefensible, of course, and the facts are that, given the first axiom that the councillor must be public-spirited and self-sacrificing, the contribution which the man with technical knowledge can make to local government is most valuable.

I am inclined to think "Positive" is obsessed with the thought of what people think and say about him. He must know that there never has been a public man who has not had mud thrown at him at some time or other. The fact that so little of the mud actually sticks is a tribute to the clean public life of England. Let us examine a few of the things which "Positive" fears will be misread into the services of the architect-councillor:—

(1) That the "peculiarly conscientious" architect-councillor may permit a "bias in reverse," in that he will voluntarily abstain from helping forward a just case in which he is interested. This seems to be an extraordinary claim, for such a man is obviously not conscientious at all, but has an eye to public opinion rather than to the rights and wrongs of the case. Such a man is not likely to hold the confidence of his constituents, nor is a man to whom peace of mind is so hardly bought likely to support the rough-and-tumble of local government for long.

(2) "There might be a tendency for people to go to him under the reasonable impression that, 'being in the know,' he will be able to set things going more expeditiously than his private colleagues." Well, if there is anything in that, it is not so very terrible a reflection of "graft"! "Positive," with considerable restraint, does not suggest that such a man would put his own work through at the expense of other things in which he had no personal interest: but merely that he would be considered better equipped in knowledge of local by-laws and administration. Probably he is, if he is anything of a councillor, and, if this fact is recognised by his fellow townsmen, surely it is not a very lavish return for the public service he has given to his town?

(3) "It mixes private business with public service." This is only saying the same thing again a little more crisply, and I think I have shown that there is little enough foundation for such a statement.

Turning to the points in the letter from the Secretary of the I.A.A.S., with which "Positive" does not associate himself, there is no doubt some ground for his statements, as otherwise an official in such a position would not be likely to make it. But I submit that the instance of a man who advertises his public service on his noteheading is a clear case for disciplinary action on the part of any professional organisation (if any) to which he belongs.

Let as many architects as can spare the time, trouble and expense of serving on local councils, who are of a character that appeals to the electors, who have the mentality which grasps the essentials of public service, come forward by all means and offer themselves for election. They must not fear what will be said about them, what effect it will have upon their private business, or what their colleagues will think, so long as they do honestly and faithfully their duties as administrators, and treat judicially their consideration of the cases which come before them. The "straight" man is bound to retain the respect of his fellows, and it is the straight and fearless man who is typical of English local government.

A.R.I.B.A.

SIR,—Surely the proof of the pudding is in the eating. I can speak for the valuable work which architects have already done when acting on local councils. In such cases the cause of architecture at least has a voice in council, whether voted down or otherwise, and this is surely better than the general ignoring of such matters, the usual thing in local government.

The likelihood of advisory panels being appointed by councils is far greater where there is an architect in office who can voice the desirability of the course, and that alone would be a sufficient plea for the profession to send forward likely members for election. I see no objection to the course which does not equally apply to all other trades and professions from whose ranks the councils are recruited.

ELECTORATE.

SIR,—A well-known political economist once stated that self-interest was the greatest force in the advancement of civilisation. Like most sweeping generalisations, this is untrue unless qualified by relation to questions of ethics, morality and sportsmanship.

Whatever may be said for or against the possibilities of good or evil of architects acting as councillors, the fact remains that in the majority of cases we find only second- or third-rate men acting in such capacity. Naturally, the influence of such men in questions of amenity or art is practically nil, as they lack the education, culture and personality to carry conviction, even when their decisions are right or even reasonably so. In all cases known to the present writer it has been proved, by their actions, that such men acting as councillors or on benches or guilds were only actuated by motives of personal advancement.

What man concerned about architecture or art could hope to convince the present-day type of lavmen found on councils, that he, as a specialist, was more capable of deciding problems of amenity and æsthetics than the layman? The day may yet come when, as in Renaissance times, the architect will be recognised as being specially qualified, by reason of his practical and idealistic outlook, as the wisest leader among men; but the time is not yet.

AMPHIGOURI.

SIR,—I am heartily in accord with "Positive's" submission in this matter. When a practising architect accepts a seat on the council of a local authority, he undertakes to promote the interests of the ratepayers as a body. As an architect he undertakes professionally to act as the agent of the individual client.

Professional work is largely development, and his duty to his client calls for the exercise of his professional ability on the basis of the unit development of any given site or building. His duty to the ratepayers as a councillor demands consideration of the development of the town or district as a whole. I fail to see how he can, on all occasions, reconcile the two conflicting interests.

May I recall the somewhat amusing experience of an architect friend of mine? He had quite a good practice in the Midlands, and, having a fully qualified and competent staff, thought to turn his knowledge to public service. He was duly elected to the local council.

At the formation of the various committees he was promptly proposed, not, as he anticipated, for the Buildings, Town Planning, or Parks and Pleasure Gardens, or even the Housing, but for the Tramways, Horse and Carriage, and Cemetery Committees. After his three years he did not seek re-election. This particular council consisted largely of elderly men, and one may wonder (with the additional knowledge that quite a few of them were fond of the game of bowls, and were not unacquainted with "bias") if, as a body, they adopted the slogan, "Safety First."

BOURNEMOUTH.

SIR,—If I err in considering that the new Town and Country Planning Bill as drafted will result in councils becoming arbiters of taste, I am in good company. But if all that stands between us and this catastrophe is a special memorandum of advice from the Ministry, then the presence of architects on councils is not only desirable but urgently necessary.

Glibly put or not, the fact that plans at present must be passed when they comply with the by-laws and rejected when they do not, remains a fact which cannot be altered by votes in committee. "Positive's" difficulty is purely imaginary. It is, of course, true that some committees do not understand their own by-laws, but this is merely one more reason for asking architects to make themselves available for such civic duties.

"Positive's" gentle shrinking from anything having the appearance of putting him at an advantage as compared with other architects practising in the same town does credit to his feelings, but in supposing that there is any real danger of such a happening he is probably mistaken.

In assuming that architects are self-invited to the advisory panels out of their love for architecture, I do not think I am mistaken. The invitation from the highest authority is, I feel sure, but the eager response of a delighted host to the overture of an ever-welcome guest.

NEGATIVE.

Housing Settlement, Hutteldorfer Strasse, Vienna: Entrance to Courtyard.

ILLUSTRATIONS

PLATES.

The "Gaumont Palace," Peckham.

This new cinema has been erected on the site of the old "Peckham Hippodrome." Fronting on Peckham High-street, the exterior is of brick of a rich red colour. The main entrance placed at the corner of the site has a pressed-steel canopy above the entrance doors, where a gold motif is effectively introduced. The entrance vestibule leads direct to the grand foyer, from which the various parts of the auditorium are approached. The walls of vestibule and foyer are painted in gay tones.

The auditorium is treated in a modern manner, the dominating colours of the walls being Chinese red and parchment, the main architectural lines being green with silver and old gold and purple silk panels. The auditorium ceiling is slightly domed, and upon it spring flowers are painted in soft tones. The proscenium opening is accentuated by means of flat surfaces commencing from the organ on each side of the auditorium and gradually receding towards the proscenium opening itself, the whole being coloured in red, green and gold. The tableau curtains are of silk in a brilliant shade of green, the central feature being a large idealised fan, upon which are embroidered flowers taking up the colours of the auditorium walls and ceiling. The proscenium opening is surmounted by a pelmet in red silk, upon which is applied a flowered design in harmony with the main curtain. The stalls and circle are carpeted in red, relieved by green wreaths; the upholstering of the seats is in velours of a soft green colour. The auditorium has seating accommodation for 2,250, with a total capacity of 2,500. The stalls seat 1,350 persons, with standing space for 250, and there is one large circle with 950 seats. The auditorium is so planned that the whole of the stage with the screen undistorted can be seen from every seat. The organ occupies the spaces by the proscenium opening on each side of the auditorium. The stage is arranged for presentation of variety programmes. The stage is fully equipped with all the most modern mechanical and lighting devices. The orchestra pit provides space for a full orchestra, and the organ console in the centre is mounted on an electric lift, which can be raised to stage level for the organ "feature" music. In the theatre there is approximately 655 tons of steelwork, one of the main girders alone weighing 60 tons, and another girder in the roof is 113 ft. long and weighs 40 tons.

Following is a list of firms engaged on the work:—Thomas and Edge, Ltd., general contractors; Moreland Hayne and Co., Ltd., steelwork; Stuarts Granolithic, cast stone; Hall and Kay, Ltd., heating and ventilation; Frank Burkitt, projection room equipment; Samuel Wright and Sons, Ltd., fibrous plaster; May Acoustics, Ltd., acoustic plaster; Jenson and Co., organ console lift; Garton and Thorne, Ltd., ornamental ironwork; Mather and Platt, hydrant installation; Carter and Co., Ltd., terrazzo tiling and mosaic; J. W. Gray and Co., lightning conductor; Crittall, Ltd., metal casements; Leeds Fireclay Co., sanitary fittings; John Compton Organ Co., organ; Bradford and Co., concrete balcony; Turner and Co., seating, carpets, tableau curtain and drapes; Thomas and Edge, Ltd., and S. Wright and Co., Ltd., decorative painting.

Messrs. Frank Verity and S. Beverley, FF.R.I.B.A., are the architects.

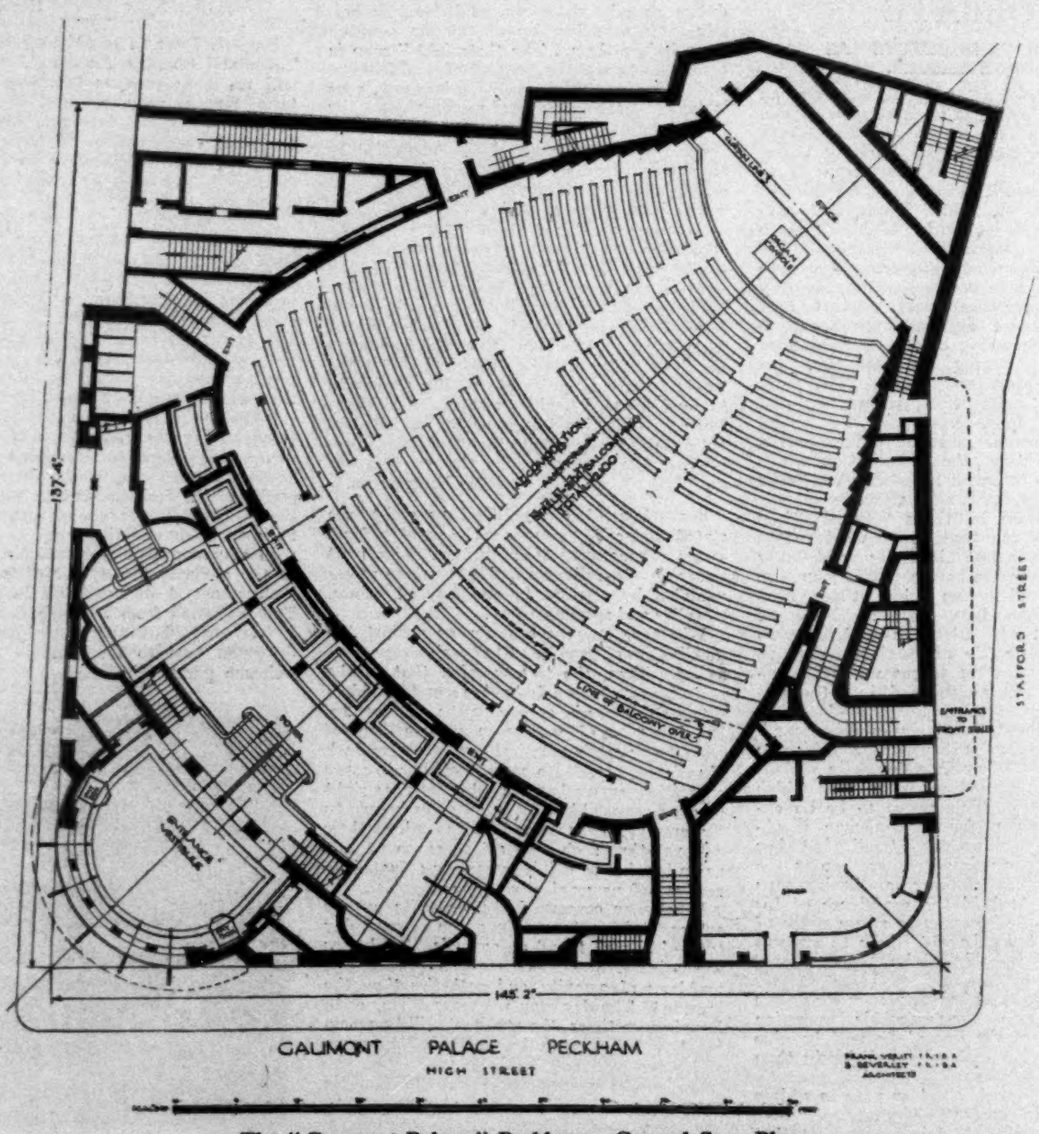
Hay's Wharf Head Offices.

In connection with our illustration of this work in our last issue, it should have been stated that the perspective drawings which we reproduced were by Mr. C. J. Parker, A.R.I.B.A.

New Factory, Perivale.

This new factory, for Messrs. Hoover, Ltd., has just been completed. Of concrete construction, it is planned on simple and

(*Continued on page* 396.)



The "Gaumont Palace," Peckham: Ground-floor Plan.

MESSRS. FRANK VERITY AND S. BEVERLEY, FF.R.I.B.A., Architects.

AUDITORIUM, FROM BACK OF STALLS.

GENERAL VIEW OF EXTERIOR.

The "Gaumont Palace," Peckham.

MESSRS. FRANK VERITY AND S. BEVERLEY, FF.R.I.B.A., Architects.

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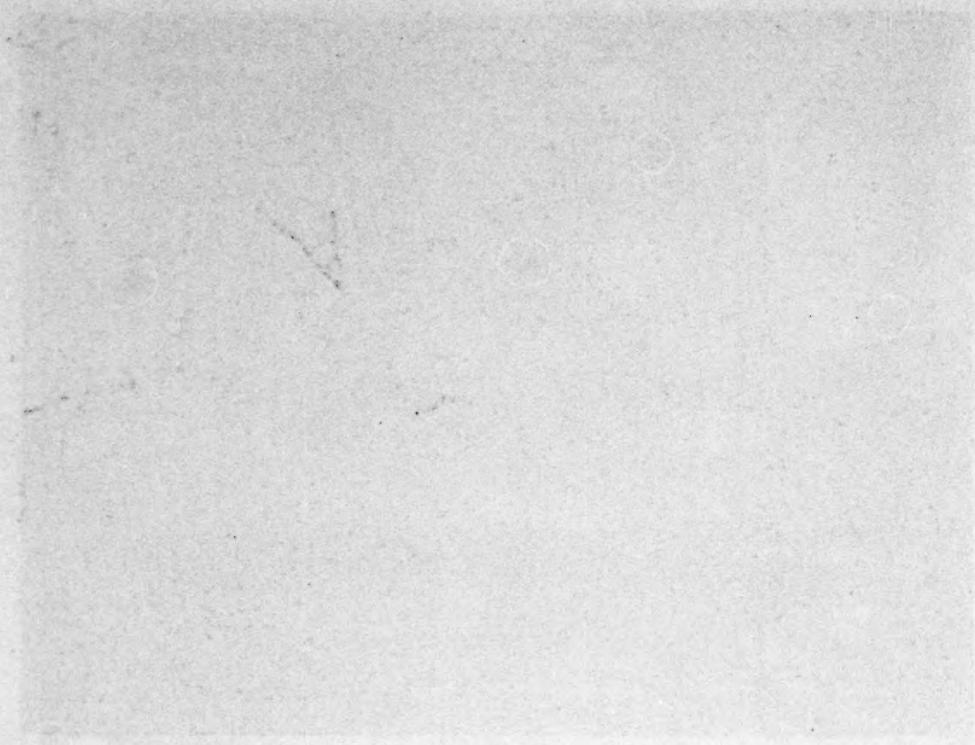
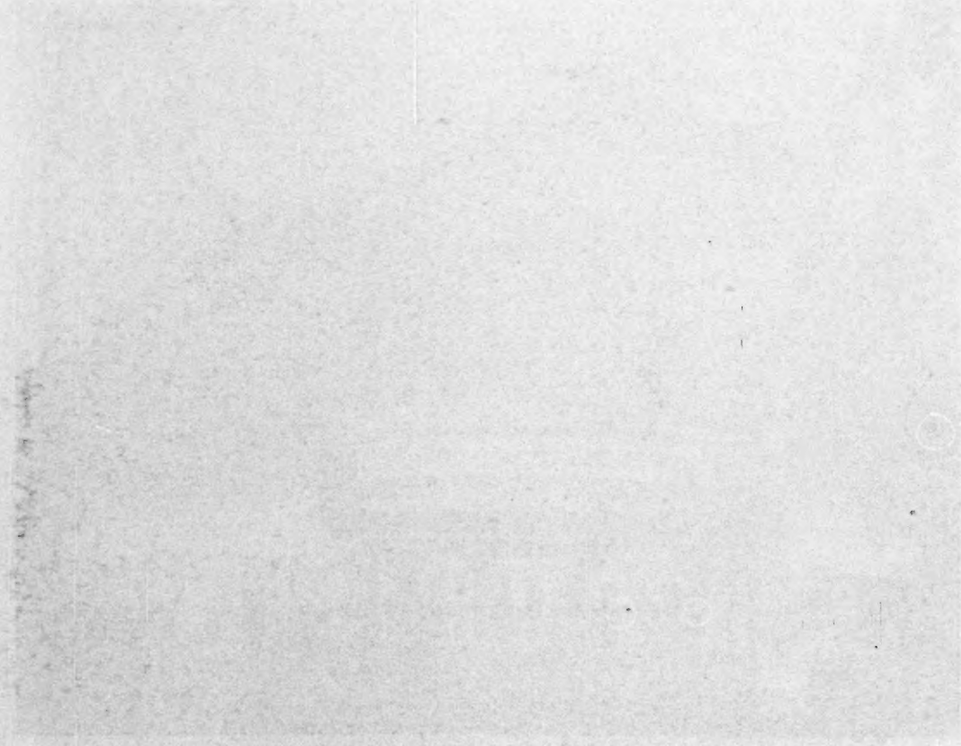


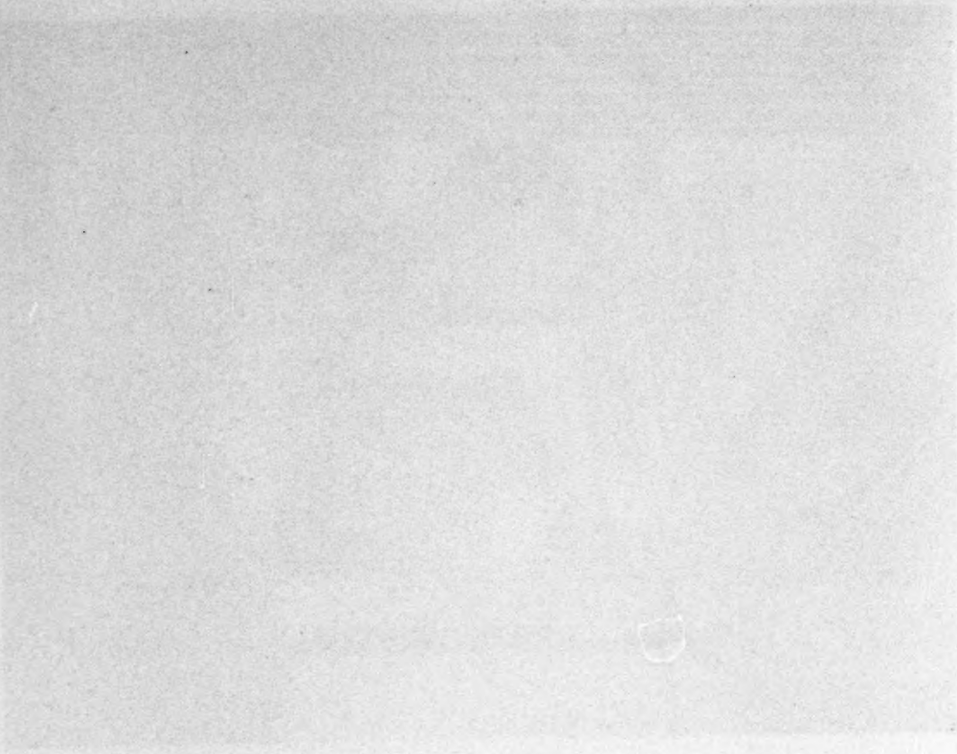


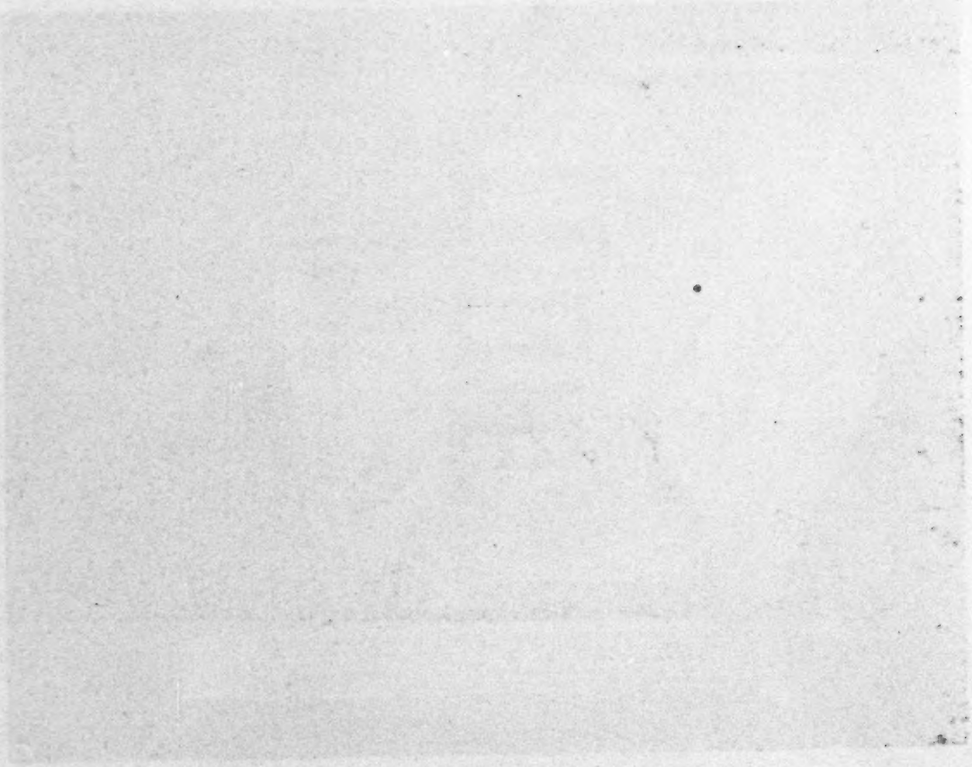
FOYER STAIRCASE.

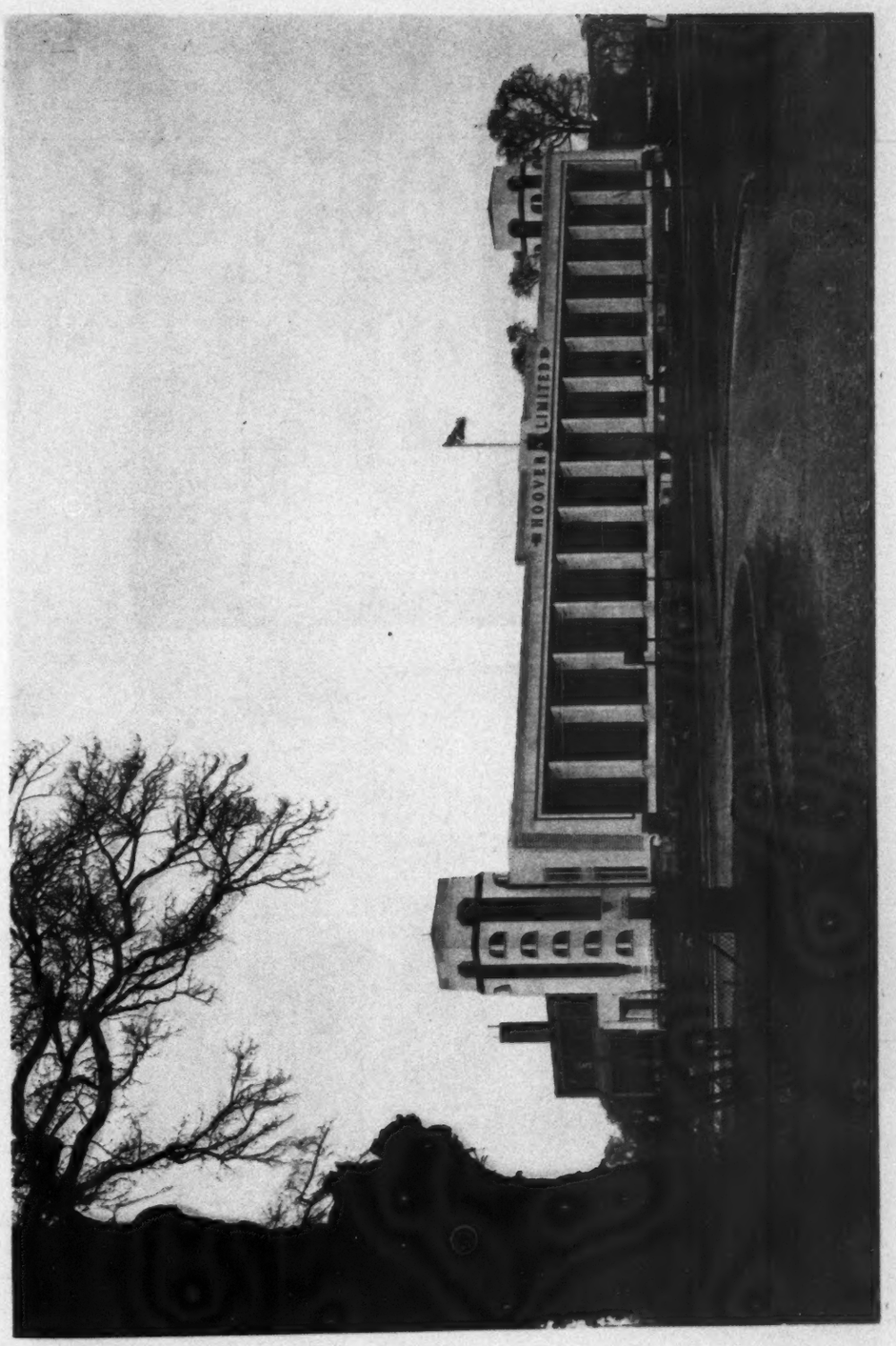
END OF FOYER.

The "Gaumont Palace," Peckham.

MESSRS. FRANK VERITY AND S. BEVERLEY, FF.R.I.B.A., Architects.

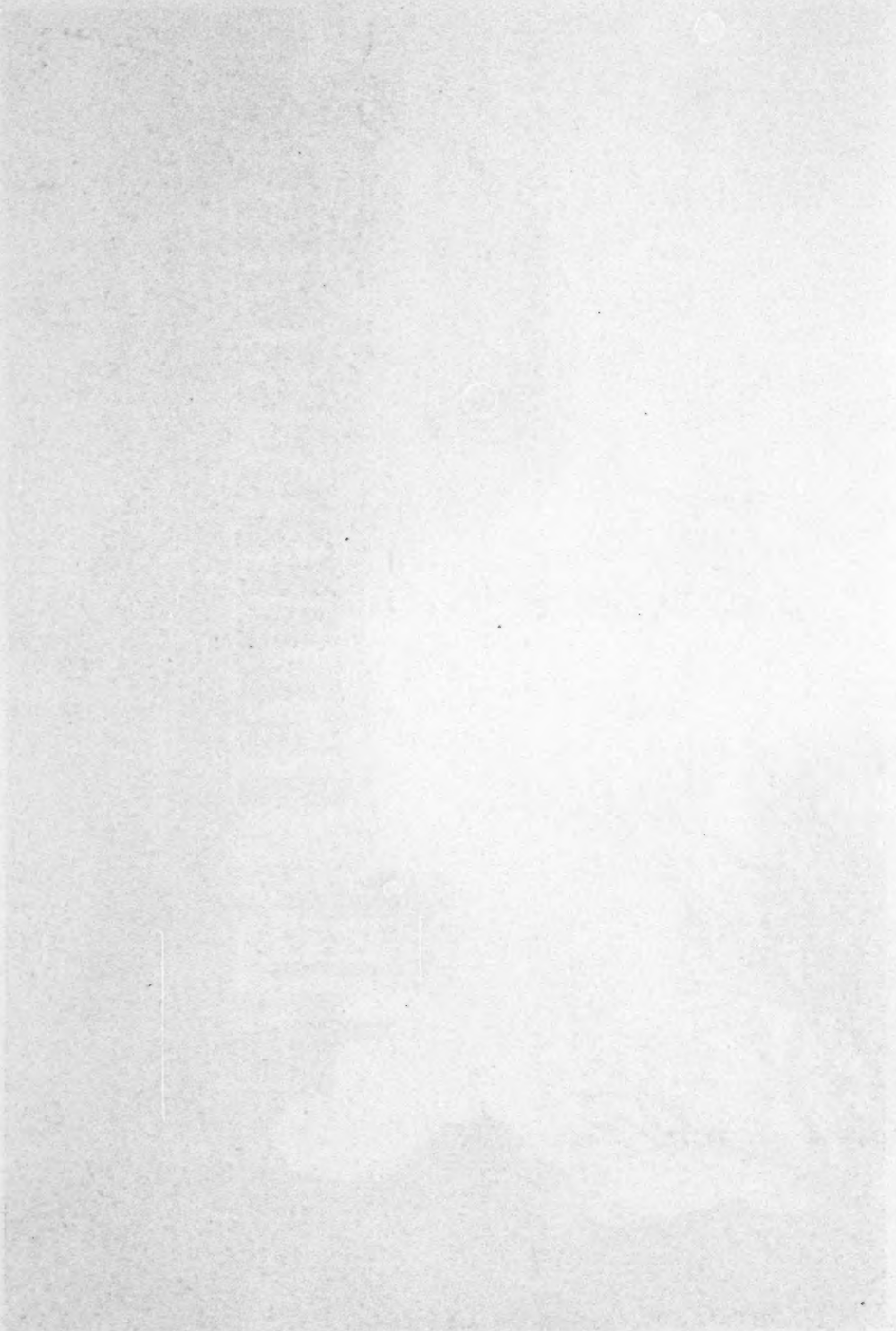


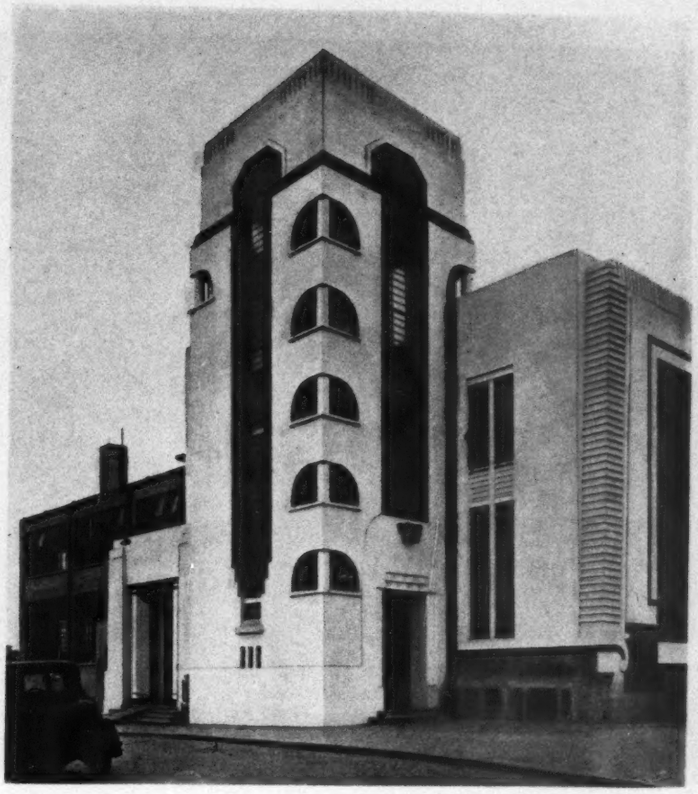




New Factory, Perivale.

MESSRS. WALLIS, GILBERT AND PARTNERS, Architects.





DETAIL OF TOWER.

DETAIL OF ENTRANCE.

New Factory, Perivale.

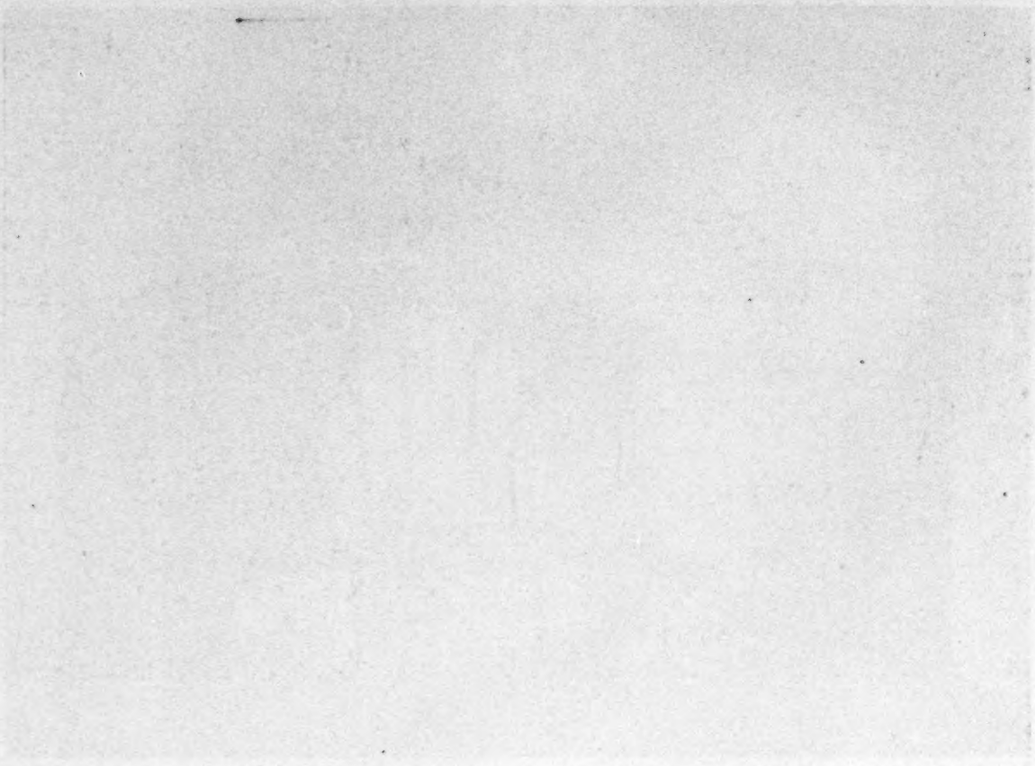
MESSRS. WALLIS, GILBERT AND PARTNERS, Architects.

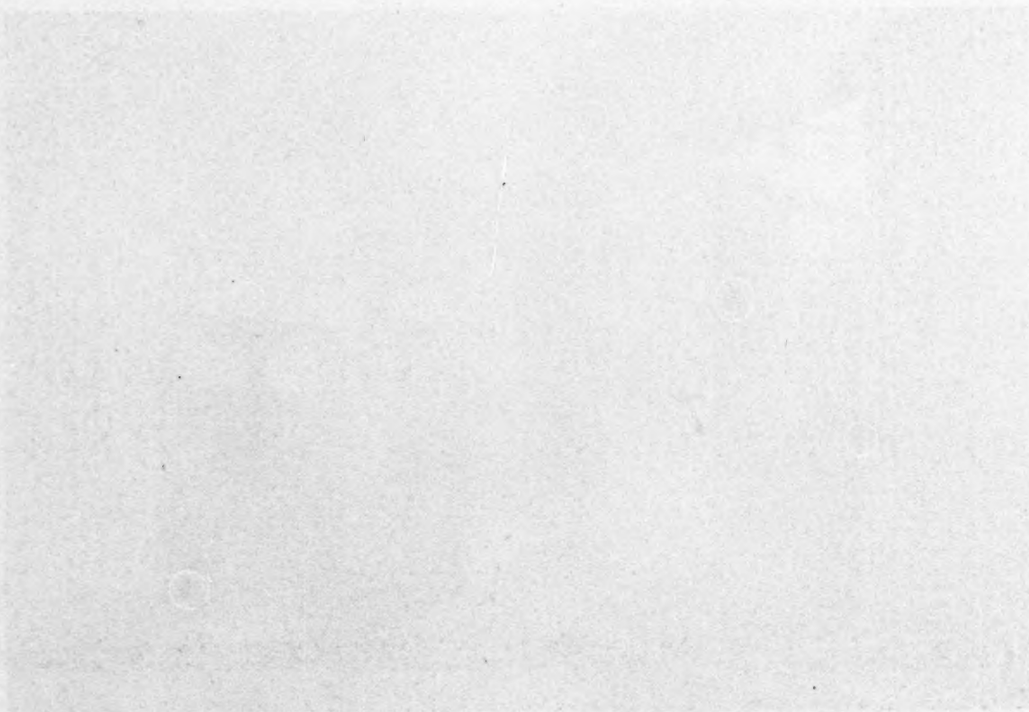
UPPER HALL.

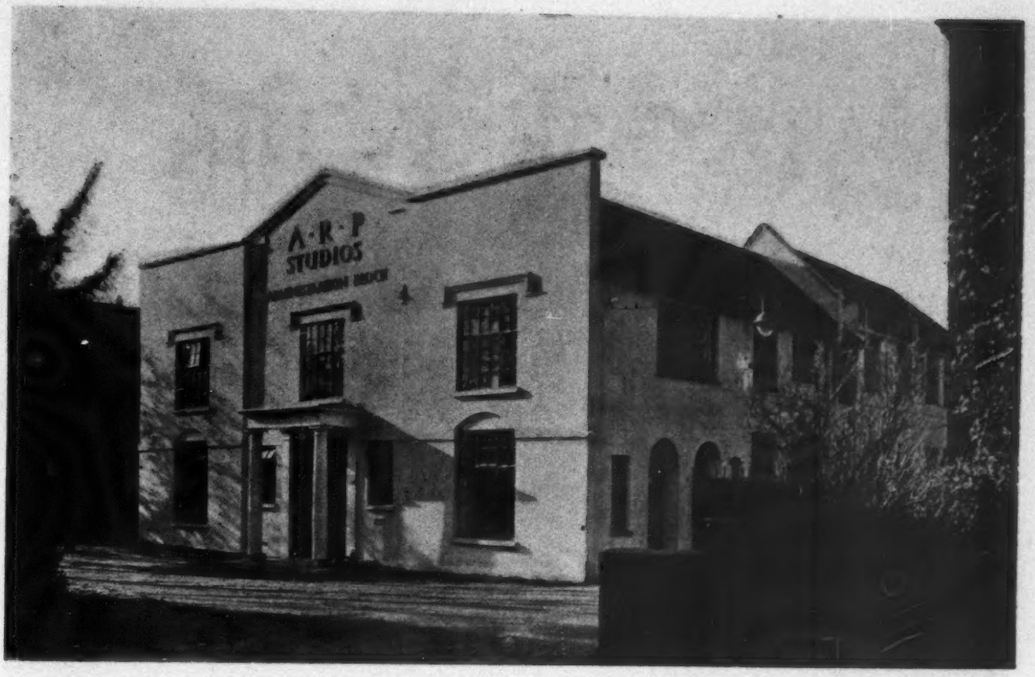
ENTRANCE HALL.

New Factory, Perivale.

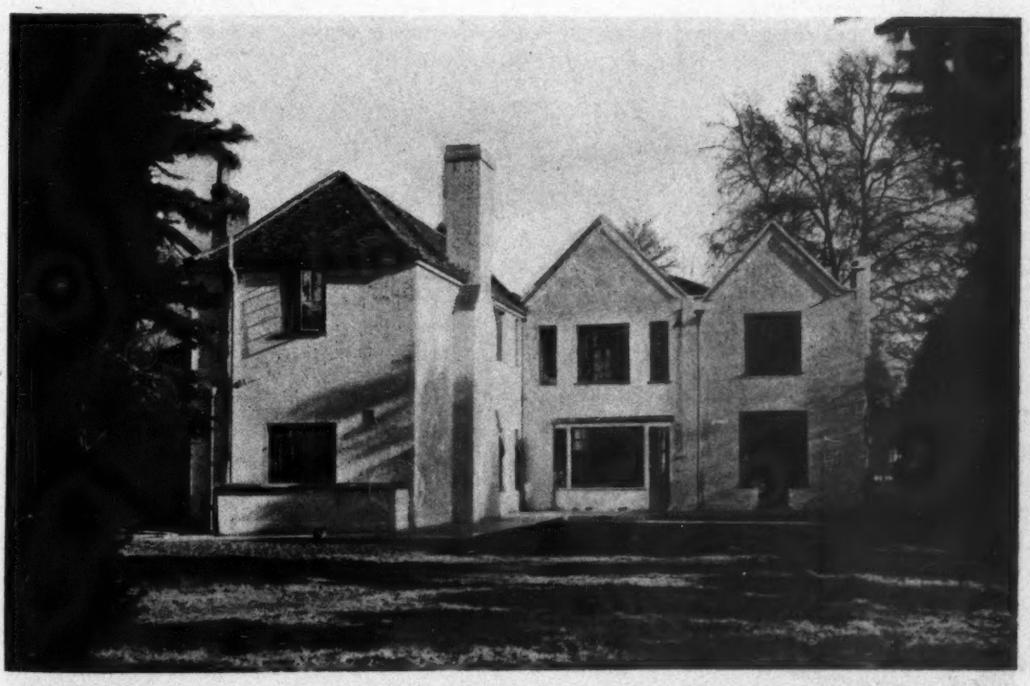
MESSRS. WALLIS, GILBERT AND PARTNERS, Architects.







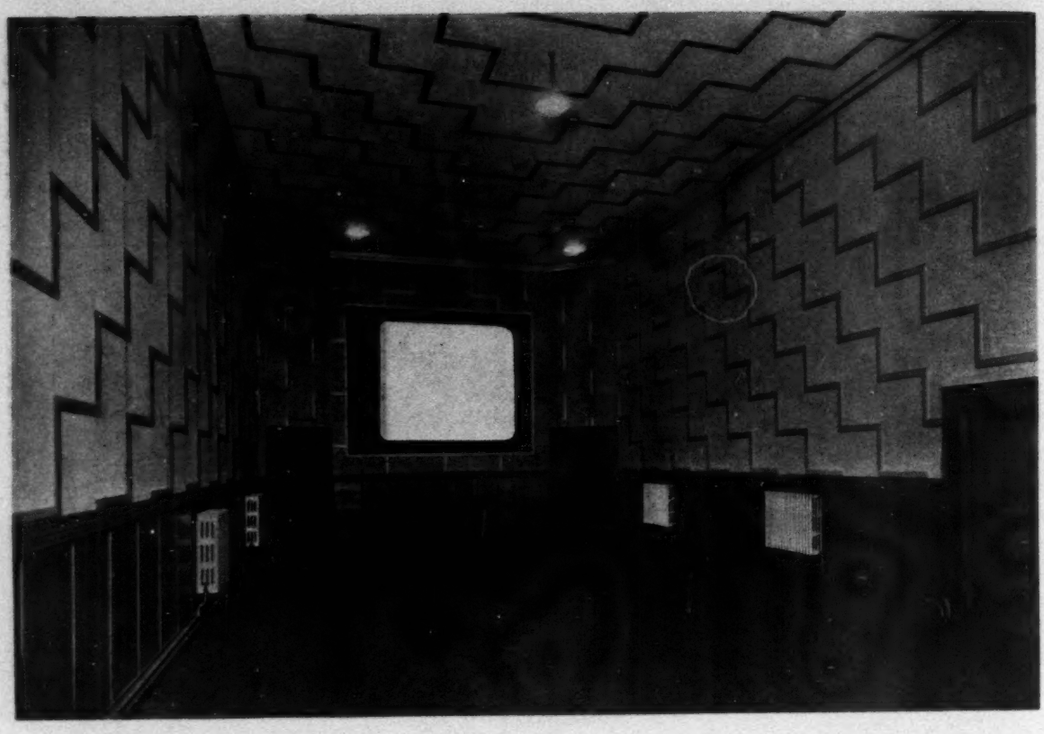
ADMINISTRATION BLOCK.



BACK OF ADMINISTRATION BLOCK.

New Cinema Studios, Ealing.

MESSRS. ROBERT ATKINSON, Architects.

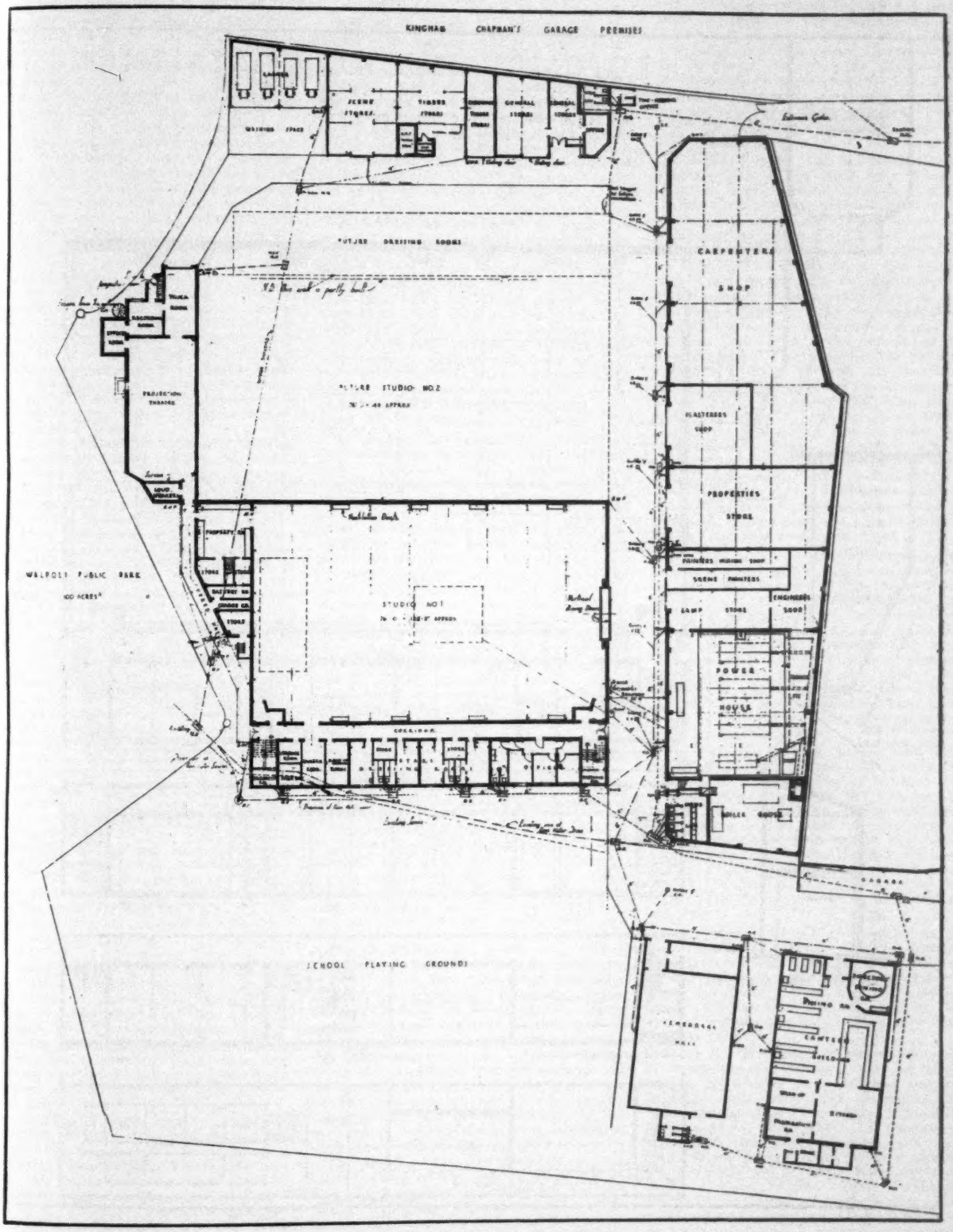


PROJECTION THEATRE.

STUDIO No. 1.

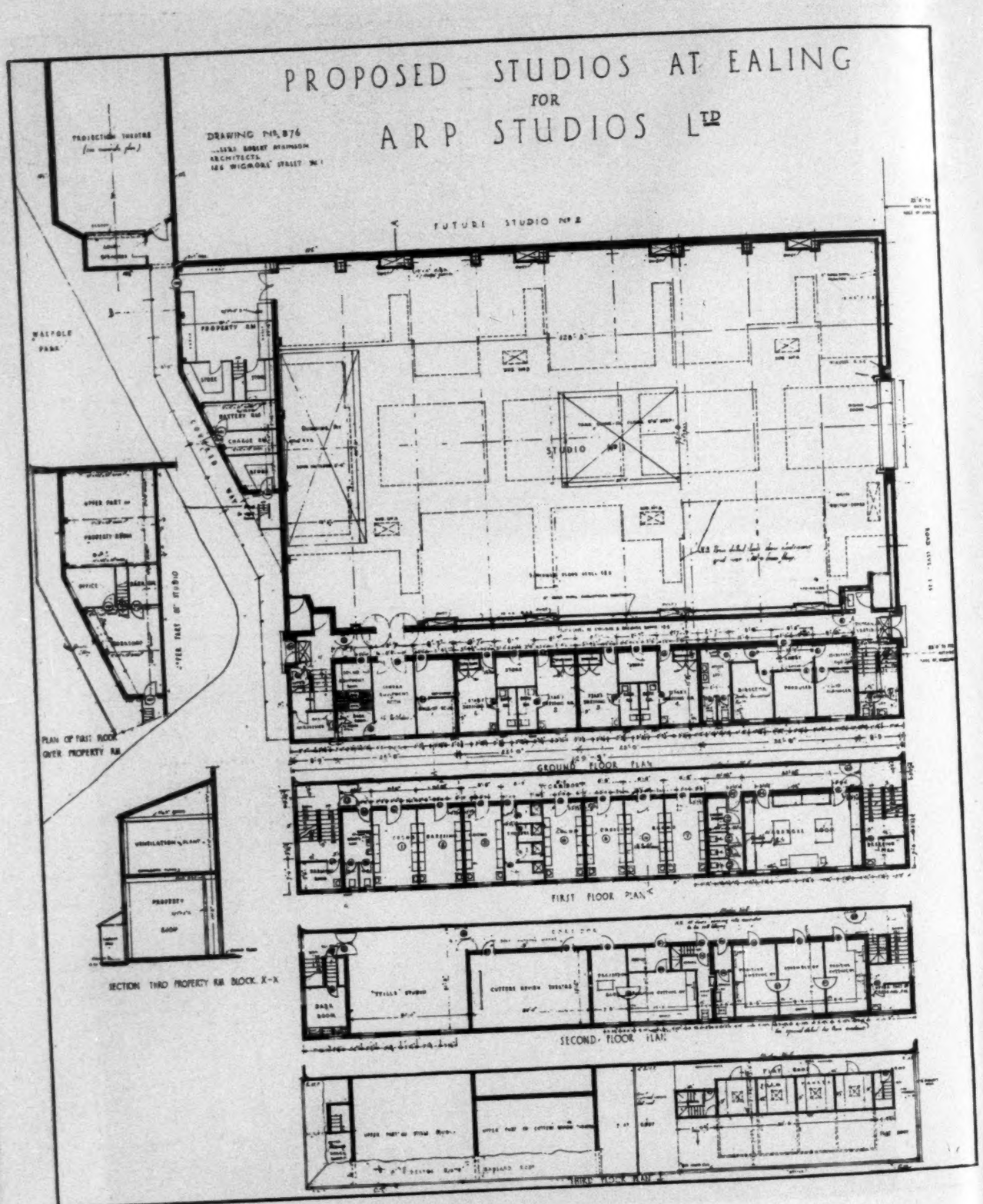
New Cinema Studios, Ealing.

MESSRS. ROBERT ATKINSON, Architects.



New Cinema Studios, Ealing: Part of Site Plan.

MESSRS. ROBERT ATKINSON, Architects.



New Cinema Studios, Ealing.

MESSRS. ROBERT ATKINSON, Architects.

NEW CINEMA STUDIOS, EALING:

THEIR CONSTRUCTION AND EQUIPMENT.

By A. F. B. ANDERSON, F.R.I.B.A., S.A.D.G. (of Messrs. Robert Atkinson, Architects of the Studios).

The new studios at Ealing which have been recently completed for A.R.P. Studios, Ltd., are probably one of the most complete examples of a sound studio unit that have been erected in this country. The lay-out as well as the construction and equipment of the buildings has many points of interest. The site, though presenting many advantages from the point of view of sound studio requirements, was of a peculiar shape, and the portion available was barely sufficient to accommodate all the subsidiary buildings that go to the making of a sound studio unit while allowing sufficient room for the larger stages required. Hence the irregular outline of the buildings, which, in many cases, have been built right up to the site boundaries.

As we enter the property, which is pleasantly situated on the western side of Ealing Green, we are met with the administrative building, which has been transformed from an early Victorian villa into an efficient-looking, well-planned office building. A concrete roadway, pleasantly framed in trees, leads straight from the entrance up to the stages, which are some 600 ft. from the main road.

The first building encountered is the canteen, capable of seating 140 persons, with a quick-lunch counter, fully-equipped white-tiled kitchens, and everything to ensure a prompt service of excellent food at low prices. The main dining-room has been delightfully decorated by the studio art director and his staff. Adjoining the canteen is the rehearsal hall, and opposite is the boiler-house, which is at the end of a long range of workshops. Turning the corner, we enter what is known as "The Street," between the workshops and the stages. At present only one stage has been built, but work on the second and third stages will shortly begin.

The stages and workshops are steel-framed buildings, with walls built of Fletton brickwork, and slurried outside with one coat of Portland cement, mixed with a waterproofing liquid, and finished with one coat of Atlas White cement. No. 1 stage is approximately 130 ft. long by 76 ft. wide and 35 ft. high to the underside of the roof framing. On the inside of the brick walls an insulating partition has been built, which is covered with 2 in. slag wool held in place by muslin and small-gauge wire netting. The roof, which consists of two layers of thatchboard covered with asphalt, is also acoustically treated with slag wool, while the upper parts of the walls, the ventilating trunking, etc., is covered with thick quality eel grass quilting.

In the floor of the studio there are two large tanks, one near the centre for the purpose of water scenes, and the other at the end of the studio for use in connection with the dunning pit. The floor over these tanks is in sections, similar to the flooring on a stage, so that any portion can be taken up without disturbing the remainder. To minimise the drumming effect of the hollow tank the floors have been made of very thick wood and insulated below.

The ventilating plant is on the Plenum system, and the eight large duct openings are capable of changing the air in the studio every ten minutes when the plant is working at full speed. As, during recording, there must be no extraneous noises, a remote control is provided on the "organ" on the studio floor (which will be mentioned later) to shut down the ventilation plant to slow speed when recording is taking place.

The recording in the studio is by the latest type R.C.A. equipment, and this complex apparatus is housed in a movable booth on the floor of the studio. This booth is connected to the recording room, which is situated behind the projection theatre (described later).

One of the most important points in a studio is the lighting, and this studio is the first in this country in which all electric wiring is concentrated at the grid level. This grid consists of a series of wide wooden gangways running up and down and across the studio at the level of the underside of the roof trusses and supported by these. At intervals on these gangways are placed four subsidiary switchboards, which are connected to the main switchboard, also at grid level, but at the end of the studio, by three large copper bus-bars. From these subsidiary switchboards leads are taken to what are termed spider boxes that are suspended from the grid, and to these spider boxes the various lamps are connected up. The lamps are generally grouped together on lighting platforms, which are simple wooden gangways about 12 ft. long and 3 ft. wide, suspended by chains from the overhead grid. The position and number of lighting platforms required changes with every set, and the method described above has been found in practice to allow of great elasticity in arrangement and concentration of lighting, combined with easy and quick manipulation.

One of the most remarkable features of these studios is the control organ mentioned above. This looks like a modern metal-covered writing desk, mounted on wheels, the top of which is studded with small coloured glass lights and electric switches. Each of these switches operates something that is required to function before recording takes place, and the little glass lights are to warn the operator in case a failure of contact should occur. Before recording begins all switches on this organ are set, and when everything is ready a wheel on the organ is turned and the whole of the operations which it controls are at once set in motion; for example, the motors of the recording and the photographic cameras are set going, the "silence" lights are switched on, the motor controlling the large scene doors at the end of the studio started up and the doors begin to fall, the electric locks controlling all the other doors in the studio are operated, the operator in the telephone exchange is informed that shooting is about to take place, etc., and the operator of this organ is then able to tell the director that everything is ready.

Mention should be made of the large doors at the end of the studio, which are the first of their kind to be built in this country. There are two doors, each about 17 ft. square, and each weighing about two tons. One is on the outside of the studio end wall and the other on the inside. Both are counter-weighted and worked by an electric motor placed high up on the grid. When they fall into place they automatically open a trench in the floor, into which they drop to their closed position. Automatic devices hold the doors in the closed position tightly against the adjoining wall, so that there is no gap round the edges of the doors by which any extraneous sounds can enter the studio. When it is mentioned that the enormous oil engines that provide the lighting and power for the studios are situated exactly opposite this stage, and only some 30 ft. away, the importance of making these doors completely sound-proof will be appreciated.

The dressing-rooms are placed in a long block running up one side of Stage No. 1. These are unusually well fitted up, and the "stars'" dressing-rooms have each a small private bathroom. For the small-part actors and supers white-tiled showers are provided. The mirrors and lighting points to assist artistes in their make-up are everywhere very complete. The construction of this dressing-room block is worthy of mention. Although abutting against the wall of the studio, it was essential that no noise or vibration in the dressing-rooms should penetrate to the studio structure, and therefore all points of contact between the dressing-room block and the studio wall are insulated with cork and bituminous felt. The reinforced concrete floors are cantilevered over the inner corridor wall, finishing 1 in. away from the studio brickwork. This gap is filled in with cork insulation. The results of this method have proved entirely satisfactory. Mr. S. W. Budd, A.M.I.C.E., was the consulting engineer for the reinforced concrete work and also for the steelwork in these studios. In addition to the dressing-rooms, this block contains a group of production offices, secretaries' rooms, a camera equipment room and store, and dark room.

A make-up room and hairdressers' room complete with all the latest type of equipment, a large wardrobe-room, a "stills" studio, where the best photographic angle of the future "stars" is studied before they go on the floor, and a group of cutting-rooms with projection theatre and film vaults above are all comprised in this block. The cutting-rooms form one of the most important units in the production of a sound film, as here the story, taken in many disjointed shots, is put together, cut, sub-titled, and is given its final appearance as we see it on the cinema screen. The cutting-rooms at these studios are fitted up with all the latest equipment; a feature is the special design of the windows, the upper part being glazed with green glass to lessen the strain on the eyes of the film cutters, and the lower part consisting of a lighting box with a front of ground glass so that artificial light is available from the same source as daylight. In another portion of the buildings are the recording engineer's quarters, with workshop, test-room, battery-room, etc., above which is placed the large ventilating plant.

We now come to the main projection theatre, behind which is the sound-recording room that is connected to the booth on the floor of the stage. The walls and ceiling of the projection theatre are lined with "Celotex," while the end walls are made specially absorbent with slag wool. The treatment has been given a pleasing appearance by carrying the wood cover strips in a sort of jazz pattern which leads the eye towards the screen. These cover strips are painted rose and silver against a warm grey background.

The acoustics of this theatre have been designed to approximate as nearly as possible to a large cinema, so that the director may judge how the film in the making is going to sound when exhibited. The theatre is also used for re-recording, which means that films which are taken without sound can be run through and have music added to them by an orchestra playing in the theatre and synchronising the music with the picture as it is shown on the screen.

Next encountered is a group of out-buildings containing a garage for the location trucks, from which recording is carried out on external shots, large scene stores, timber stores and general stores, the last of which houses all the materials required in the making of films and the running of a unit such as this.

There is a long range of workshops, each of which has an enormous pair of large sliding green doors on which are painted in large white letters the designation of the particular shop. First, there is the mill or carpenters' shop, then the plasterers' shop, then the main property room, the painters' mixing shop, scene painters' studio, the lamp store and engineers' workshop, and, finally, the power house. These workshops are built in brickwork with whitewashed walls and north-light roofs, and are warmed by means of "Unit" heaters, with steam pipe coils to keep off condensation.

The power house is, in size, about 40 ft. by 50 ft. by 18 ft. to the underside of the trusses, and contains at present three large Diesel oil engines, two of 600 h.p. and one of 250 h.p., while provision has been made for the installation of a third engine of 600 h.p. at a later date. These engines are

of the type commonly used on steamships, and burn crude oil. They supply all lighting and power required, and at the end of each engine is placed a large generator. These are connected to enormous switchboards from which the cables run underground to the main studio and other buildings. Mr. Stanley Double, chief engineer of the studios, designed the layout of these engines, and also the whole of the very complex electrical installation.

The engine foundations are unusually massive in order to obviate any possibility of structural vibration in the main studio, and consist of an immense concrete slab, about 32 ft. wide by 8 ft. deep. This is carried on a layer of cork insulation, which in its turn is carried on another 2 ft. slab of concrete. Round the engine foundation there is a 4 in. gap, so that the only point of contact with the adjoining land or buildings is through the cork insulation base. In addition, to keep out air noises the wall of the power house next the studio was built up solid, and there is no access except through the adjoining workshop. These precautions have proved completely successful, and no trace of noise or vibration is felt in the studio.

The boiler house contains a large Lancashire-type steam-heated boiler, together with the steam calorifiers and summer boiler for the hot-water service. These boilers are oil burning, and are fed from the same tanks as feed the Diesel engines in the power house adjoining.

The following is a list of the contractors and sub-contractors engaged on the work :—C. Miskin and Sons, Ltd., St. Albans, general contractors; Horseley Bridge and Engineering Co. and Fleming Bros., Ltd., steelwork; Gorford Bros., Ltd., heating and ventilation, canteen service and equipment; Boulton and Paul, Ltd., rehearsal hall and canteen building; E. Parry and Co., roads; H. Cullum and Co., Ltd., acoustic treatment of studio, projection theatre, etc.; Absorbit, Ltd., acoustic treatment of ceiling, soundproofing of machinery and insulation of roads; Heat and Sound Insulation, Ltd., acoustic treatment of studio, projection theatre, etc.; Heat and Sound Insulation, Ltd., thatchboard roof construction and thatchboard insulation of studio walls; Christie and Grey, Ltd., insulation of electrical oil engines; Clarke and Vigilant Sprinklers, Ltd., sprinklers and fire appliances; W. James and Co., Ltd., and Crittall Manufacturing Co., Ltd., windows; Luxfer, Ltd., patent glazing, skylights, etc.; F. A. Norris and Co., Ltd., iron ladders and staircases; Ruston and Hornsby, Ltd., oil engines; Herbert Morris, Ltd., Loughboro', overhead travelling crane; F. Burkitt, Ltd., rising and falling door construction; Marryat and Scott, Ltd., electric locks for studio doors; D. Anderson and Son, Ltd., roofing felt; British Trolley Track Co., Ltd., ball-bearing gearing for garage doors; T. C. Jones & Co., Ltd., chequer plate covers; Bayliss, Jones and Bayliss, gates and railings; Walter Cassey, Ltd., door furniture; Kingsmill Art Metal Co., balustrade and handrail; Martin Van Straaten and Co., tiling; J. R. Venning and Co., Ltd., sanitary fittings; Nash and Hull, Ltd., lettering; Ragusa Asphalte Co., asphalt; Standard Insulator Co., rubber flooring; Siegwart Floor Co., fireproof floors; Maple and Co., Ltd., furnishing, chairs, carpets, etc.; H. N. Barnes, Ltd., snack counter in canteen; Central Joinery Co., panelling in projection theatre, canteen tables, etc.; Jarvis and Co., hairdresser's basin; Galliers, Ltd., lighting fittings; J. Pinder and Co., scene painters' frame.

Electrical work (carried out to the instructions and under the supervision of Mr. S. G. Double, chief engineer, A.R.P. Studios, Ltd.) :—Donovan and Co., studio accessories; Hewit and Co., equipment for main theatre; Duncan Watson and Co., transformers; Park Royal Engineering Co., studio equipment; Korting and Mathiesen, General Electric Co., and B.T.-H. Co., lamps; Glovers Cable Co. and Pirelli General Co., cables; M.E. Cable Co., sound equipment; Cartret Switchgear Co., switchgear; Ruston and Hornsby, Ltd., oil engines; Sagar and Co., mill machinery; British Petroleum Co., fuel; Alex. Duckham and Co., lubricating oil; Kershaw and Co., projection.

Messrs. Robert Atkinson are the architects.

ILLUSTRATIONS

(*Continued from page* 386.)

utilitarian lines, with elevations of a striking character in the modern manner. The main entrance forms a central feature, relieved with a simple decorative motif in bright colours, surmounted by the Royal coat of arms. Towers at the ends of the main façade complete the front. The interiors, as will be seen by our illustrations, are also treated in a modern manner.

The general contractors were Messrs. Higgs and Hill, Ltd., and the following were sub-contractors :—E. J. Elgood, Ltd., granolithic work; Trussed Concrete Steel Co., Ltd., reinforcing steel; Emerson and Norris, Ltd., cast stone work; Asbestos Cement Building Products, Ltd., Trafford tiling; W. H. Gascoigne and Co., internal plumbing; H. W. Dutton and Co., Ltd., heating installation; Wilson Lovatt and Sons, Ltd., trial holes; Parker, Winder and Achurch, Ltd., fencing and gates; Carter and Co. (London), Ltd., faience and terrazzo; Milners Safe Co., Ltd., strong-room doors, ventilation, etc.; John Lightfoot, Ltd., Manchester, electrical work; Henry Hope and Sons, Ltd., steel sashes, lantern lights; Somerville-Barnard Construction Co., Ltd., structural steelwork; Limmer and Trinidad Lake Asphalte Co., Ltd., asphalt work; Mellowes and Co., Ltd., patent glazing; Leeds Fireclay Co., Ltd., sanitary fittings; Independent Sprinklers, Ltd., sprinkler installation; McDowall Steven and Co., Ltd., rainwater heads; Roneo, Ltd., steel partitions; British Trolley Track Co., Ltd., coburn gear; Nash and Hull, Ltd., "Hoover" sign and coat-of-arms; Aldous and Campbell, Ltd., hand lift; W. J. Furse and Co., Ltd., lightning conductor; Ash's Manufacturing Co., kitchen and canteen equipment; Comyn Ching and Co., Ltd., ironmongery; Gas Light and Coke Co., gas main; May Acoustics, Ltd., sound deadening; Uxbridge and District Electric Supply Co., Ltd., ventilation; Acme Flooring and Paving Co., Ltd., Barking, wood block flooring; Cork Insulation Co., Ltd., cork insulation; North British Rubber Co., Ltd., rubber flooring.

Redalon was used wherever rendering was applied to the concrete. Moler Products, Ltd., supplied "Fosalsil" insulating partition blocks.

Messrs. Wallis, Gilbert and Partners are the architects.

NOVATION

By W. T. CRESWELL, Barrister-at-Law, Hon. A.R.I.B.A., A.S.I., etc.

Novation is the result of *innovation*—such as a substitution of a new debt for the original debt recognised by the contract, or the substitution or addition of a new party or parties for either of the original parties, or the addition of other parties. In short, a new contract is substituted for an existing contract, but, in the main, concerning the same matters, and to the innovations there must be consent of all the parties of the original agreement, either expressed or implied. That is to say, consent may be inferred from mere conduct without express words, but in that case the party alleging the consent must prove it; and must show that there has been some distinct request for it by one of the parties to the original contract.

But there may be novation by the remodelling of an old obligation or agreement. An alteration in the contract, for instance, after a guarantee has been entered into therefor, will, if the alteration is material, discharge the surety and there is novation.

Novation also occurs where there being a contract in existence some new contract is substituted for it; either between the same parties or between different parties; the consideration being, the discharge of the old contract.

The original party or parties are released, and the additional party or parties are bound similarly as the original parties to the existing contract. The new contract must comply with all the requirements of a new contract. There must be, for example, a valuable *consideration* present, though the discharge of the original contract may in itself constitute a valuable consideration. If the contract was in writing and before any breach of it a new contract has been substituted, the new contract does not imply any variation of the original under any circumstances. The new contract may contain a repetition of some of the terms of the original contract, but both hold severally.

Effect of Variations.

Most building contracts provide for variations of the contract, but that does not entitle the employer or his architect to alter the whole scheme of the enterprise originally contemplated in the contract. The effect of such wholesale variation which goes to the root of the contract, is the substitution of a new contract, *i.e.*, novation. Where for any reason a new contractor is substituted for the original contractor for the purpose of completing unfinished work, the new contractor is not liable for defects in the work done by the original contractor, unless it can be shown that by the new contract he has agreed to accept such liability. The new contract may, of course, make him liable for all those obligations for which the original contractor is liable, for in general the new contractor then stands in all respects in the shoes of the old one.

In re Yeadon Waterworks Co. and Binns (1895, 72 L.T. 538 and 832) there was a building contract under which the contractor was liable for certain penalties as and by way of liquidated damages for delay. The contract also provided that in certain events happening the company might terminate the contract, but without affecting in any other respects his liabilities and might enter into possession of the work. The company terminated the contract and took possession of the works, and the defendant, who had been surety for the contractor under the original contract, agreed to complete the work in accordance with the original contract and upon the express condition that nothing was to vary or rescind any term of the original contract. There was delay on the part of the original contractor, and the defendant did not complete within the contract time and he was held liable to the penalties at the rate agreed upon in the original contract.

Furthermore, an alteration of any provision of a contract may amount to novation of the original contract and its discharge; the question always is—is the alteration material? If it is then novation occurs.

When under a bond given by sureties to a building contract arbitration by a named arbitrator is provided for, in the event of certain disputes happening, the substitution, by consent of the employer and the contractor, of another arbitrator, in a new submission to arbitration may release the sureties from any liability to pay the costs of the reference under this substituted submission.

Parties to a building contract, that is, the employer (or the architect as his agent) and the contractor should very carefully bear in mind the effect which any alteration may have on the value and construction of the building contract, and these should be as far as possible foreseen and expressly provided for in the original.

MANCHESTER SOCIETY OF ARCHITECTS

EDUCATION AND RESEARCH IN BUILDING.

On Wednesday, February 10, a paper was read to the Manchester Society of Architects by Dr. R. E. Stradling, M.C., Ph.D., Hon. A.R.I.B.A., entitled "The Problem of Education and Research in the Building Industry." The President, Mr. Hubert Worthington, was in the chair.

Dr. Stradling began by giving as a kind of text the following quotation from Dr. Raymond Unwin's presidential address: "To tradition is assigned the function of preserving and handing on all that is permanently valuable in originality; while the constant purpose of originality is to enliven and enrich the tradition which has been inherited." That seemed, said the lecturer, to be the statement of a truth of much wider application than that to which Dr. Unwin was referring, and especially worthy of close consideration by those interested in the scientific development of the building industry.

In all ages man must have been faced with the problem of absorbing into his tradition the results of original thinking or flashes of inspiration; the problem became peculiarly intense in the present age, when new scientific methods were so much to the fore. Man's adjustment to nature, which was summarised in tradition, had in the past been brought about by slow, "trial and error" methods, whereas modern scientific methods now offered the possibility of more speedy and calculated adaptation to meet all demands. This tradition had been formulated and worked thoroughly well as long as no originality came in to confuse the issue, but at all times in which progress was being made, original conceptions were emerging, and the problem was thus always present of how to pass into tradition the new conception, which must lead to difficulties unless the new idea satisfied the natural forces brought into action.

The tradition of the building industry was not founded on scientific method, and so, before originality adjusted by scientific method could be used in conjunction with tradition, the tradition itself needed to be analysed by the new method. The problem of the wall was a typical one, and the lecturer showed clearly how in traditional methods of construction its qualities had been greatly altered, and many serious problems, he said, had arisen from the replacement of traditional materials by new ones. The problem of the scientific man at the present time was to analyse the conditions existing in walls so that the available materials could be utilised correctly; or, in other words, the problem was to understand the tradition, so that the new ideas could be assimilated. In a similar way, the problems of the engineer in the construction of steel-framed and reinforced concrete buildings required a complete scientific analysis.

Thus the position was reached that traditional building construction was not possible now—whether we liked it or not, the methods of our forefathers could not be carried out—we had neither the materials nor the time, and quite fresh demands were being made which were not allowed for in the traditional forms. The modern method of development was by the application of scientific knowledge, and the State had set up the Building Research Station to provide facilities for carrying out the research work necessary. But the Station could not work alone; co-operation with the men of practical experience was essential for success. In addition, it was not the work of the Station to carry out the general scientific education necessary if the modern method of expressing tradition was going to be used.

The industry could be divided into two groups, (*a*) designers and organisers, and (*b*) craftsmen, and the former were composed largely of architects, builders and engineers. It seemed likely that in most cases entrance to the architectural profession was due to the promptings of the artist in man. He turned to the "Mother of the Arts" rather than to painting or sculpture, because he felt, perhaps, that it provided a little safer passage through life. In architecture, through its direct connection with an application to material things, he would at least acquire supplementary knowledge which provided a means of existence until he made good; with painting or sculpture he might starve before he could achieve success. Whilst, therefore, the student-architect in general naturally absorbed instruction which was intended to develop his artistry, he was liable to regard as onerous much instruction which was equally necessary if he was to perform satisfactorily all the functions of "master builder" (employing the term in the original sense). Here seemed to lie the difficulty in architectural education, but it was one which must be met if the architect was to keep a hold on his responsibilities in modern times. Without hindering his artistic development, it was necessary to be more insistent than in the past in getting home to the student, early in his career, the *full* significance of his ultimate responsibilities. Nothing would help him more in this than the acquirement of a scientific or rational outlook. This did not necessarily mean that he must be made into what could only be an indifferent scientist, but he should be educated to ready appreciation and assimilation of the results of scientific investigation. The only way of accomplishing this appeared to lie in including applied science in his curriculum up to a much later state in his training than was done at pre sent.

One realised how real must be the desire of those controlling the training of architects to produce men for the profession who could not perpetrate some of the horrors now seen as buildings. The insistence on the artistic development was sincerely appreciated, but what was to be the final result if equal attention was not paid to the revolutions that were in progress in both materials and processes, and were the media in which the artist-architect had to work?

The reply given so often to such expressions of opinion was that, though the argument might be to some extent true, the present courses of training were so full that there was no room for anything more. This was really no reply, for it was a replacement of some sections and re-orientation of others which was necessary rather than a lengthening of the course. Even in design this was true. Why should buildings be designed which were wrong acoustically? Information existed which, if used, would, in any case, prevent serious acoustic defects, if it did not produce perfection; yet how many architects thought first of the requirements of a hall from this standpoint rather than artistic form?

It was the recognised duty of the architect to produce the designs of a building suitable for its purpose, and also a thing of beauty. He might do this by a flash of genius in considering the artistic side only and leaving the suitability to chance. Such things had happened, but was it safe to assume all architects were geniuses all the time, or even that a higher proportion existed in that profession than in others? Surely the only satisfactory way was to take into everyday practice the gradually accumulating knowledge brought into being by the modern application of scientific method, whether this knowledge affected design direct, as in acoustics, or more directly, as in the science of materials.

The recent addition of compulsory acoustical design and calculation in the Associateship examination of the R.I.B.A. seemed a really serious step in the right direction. If more scientific work could be included in professional examinations the entrants would of necessity have to include more in their training. If the training of the architect did not develop, taking this revolution seriously into consideration, then his present claims and accepted duties would gradually be absorbed by others who kept pace with modern conditions.

Obviously, his remarks only touched the fringe of the problem. It was realised that the difficulties were being faced by one or two of our leading schools of architecture, but the handicaps under which they had to work were very serious, and not the least of their problems was finding suitably trained teachers of building science.

Mr. Francis Jones proposed, and Mr. Mouat Jones, M.A. (Principal of the Manchester College of Technology) seconded, a vote of thanks, which was supported by Mr. Swarbrick and enthusiastically carried.

THE WEEK IN PARLIAMENT

Westminster, Wednesday.

Town and Country Planning Bill.

Standing Committee A continued its consideration of this Bill.

On Clause 2, Local Authority for Purposes of Act, Mr. Beaumont moved an amendment that the local authorities for the purposes of the Act should be "all county authorities." He said that it was not his object to rule all local authorities entirely out of the picture. To extend town planning all over the country, as the Bill proposed, schemes must be started on a wide basis. The object of the amendment was to give the county councils the power and opportunity to plan the whole country, and then to urge the district councils to plan their areas in accordance with the broad scheme.

The original proposal of the Government that the authorities should be the L.C.C. and the councils of county boroughs and districts was, however, adhered to, the amendment being negatived and the clause agreed to.

In the course of further discussion, Sir E. Hilton Young made a concession to some of his Conservative critics. The Bill gives to a joint committee of local authorities power to co-opt additional members so long as the number co-opted does not exceed one-half of the members on the committee. Sir E. Hilton Young moved an amendment, which was carried, stipulating that at least three-fourths of the members of a joint committee should be appointed.

Later, the Government were defeated, but on a comparatively minor point. Captain Waterhouse moved an amendment to ensure that in the resolution passed by the appropriate authority in connection with the preparation or adoption of a town-planning scheme, the area of the proposed scheme should be defined by reference to a map to be deposited at the prescribed offices.

Sir E. Hilton Young said that there was no question of making any change in the existing regulations, which were working well. He would meet members on all substantial safeguards, but, in asking for this amendment, they were really barking up the wrong tree. The amendment did not contain safeguards of the kind needed.

The amendment, however, was carried against the Government by 21 votes to 13.

Charing Cross Bridge.

Mr. V. Adams asked the Minister of Transport if he would make a statement as to the Government's policy with regard to the rebuilding of Charing Cross Bridge.

Mr. Pybus said that the late Government decided not to renew the offer of a grant towards this project, and the present Government was in accord with this decision.

Houses Under Construction.

Sir E. Hilton Young informed Mr. G. Hicks that the numbers of houses under construction in England and Wales on January 1, 1931, and January 1, 1932, were 36,815 and 42,498 respectively.

LEGAL SECTION

LANDLORD AND TENANT: DERATING

Some interesting points have been decided in the recently reported case, Dependable Upholstery, Ltd., *v.* Brasted and Another (McKenzie third party). The appeal in question was heard June 11, but is now reported in the Law Reports, 1932, 1 K.B. 291. By a lease dated December 31, 1927, James McKenzie demised to Messrs. Brasted, the defendants in the action, certain premises in Clapton for a term of seven and a quarter years from March 25, 1927, at a yearly rent of £285, and a further rent of £291 by way of rates. (This division of rent was pronounced by Lord Justice Greer in the appeal to make no difference in the question raised for determination.) The lease contained a covenant by the lessor, McKenzie, "to keep the lessees indemnified . . . against all rates and taxes and outgoings whatsoever which now are, or hereafter may become, payable in respect of the demised premises." By an underlease dated January 2, 1928, the defendants sublet the premises to S. and J. Breckman for the whole of the above term, less the last three days, and in the underlease the underlessors covenanted to "pay the rent reserved by, and observe the covenants contained in, the lease under which they held the demised premises," and then followed the indemnity clause set out above. On April 1, 1929, Messrs. Breckman assigned this underlease to the plaintiffs in this action. The premises were used by the plaintiffs for making furniture, an industrial purpose under the Rating and Valuation (Apportionment) Act, 1928, and consequently to a relief from rates under section 68 of the Local Government Act, 1929, and the rates payable were reduced for the period October, 1929, to April, 1930, from £131 15s. to £32 17s. 4d., being the amount assessable only upon a rateable value of one-fourth of the annual value, and the plaintiffs claimed from their immediate lessor that they were entitled under section 73, subsection (1) of the Local Government Act to the difference between these two sums, viz., £98 17s. 8d.

This part of the case presented no real difficulty, as the Court held that under section 73, subsection (1) of the Local Government Act the defendants, the sublessors, were the landlords of the plaintiffs and liable to pay to the plaintiffs the difference claimed, but there was a second point brought into the case as the defendants had claimed as against the third party that if they were held liable to pay this sum to their lessees (the plaintiffs), then under the covenant contained in the lease to them by James McKenzie (his widow and executrix being the third party) to keep the lessees indemnified against all rates and taxes and outgoings whatsoever, they were entitled to be indemnified in respect of this sum, and on this point the Court below had found in their favour, but this appeal had been brought by the third party against the judgment. Section 73, subsection (1) of the Local Government Act, 1929, is as follows:—"Where any rates in respect of an industrial hereditament occupied by a tenant are, whether by agreement or otherwise, payable by the landlord, then so long as under any contract made before the commencement of this Act there is payable by the tenant in respect of the hereditament rent inclusive of those rates, the landlord shall, as from the appointed day, be liable to pay the tenant, or allow by way of deduction from his rent, a sum equal to the difference between every amount payable by the landlord by way of those rates, after deducting any allowance, commission abatement or deduction granted to him by the local authority, and the amount which would have been so payable at the rate in the pound current for the time being if the rateable value of the hereditament had been equivalent to the net annual value thereof."

In the Court of Appeal the intention of this sub-section was explained by Lord Justice Greer very clearly. He is reported as saying, "I regard that section as showing an intention to leave the lessor of an industrial hereditament in exactly the same position as he was in before the Act was passed; instead of paying the rating authority the full amount of the rates which, under his covenant of indemnity with his lessee, he is liable to pay, he now pays part to the rating authority and pays or allows the balance to his lessee." Now, the only ground upon which the claim to indemnity could be founded as against the head landlord was upon the word "outgoings" in the covenant to indemnify, and the Court of Appeal unanimously reversed the judgment of the court below on this question of indemnity, holding that this allowance provided by the Act could not be regarded as an "outgoing." An outgoing was described by the Court as some expense which the tenant is put to, it may be by some Act of Parliament passed after the date of the lease, but it must be an expense, but this mere transfer of a charge to prevent a landlord from getting a benefit not intended by the legislature for him but for his tenant, the occupier, could not be described as an outgoing. Lord Justice Scrutton described the payment as "a balancing transaction," and he, and also Lord Justice Slesser, held that the payment was not under the covenant "made payable in respect of the demised premises," but that it was a payment made in respect of the demise of those premises which the defendants had made to the plaintiffs for an industrial purpose, or, as Lord Justice Slesser put it, the payment was made in respect of the occupation and use of the premises for a purpose within the Act.

Rent Restriction and Crown Lands.

The recent case, Wirral Estates, Lim., *v.* Shaw (*Weekly Notes*, January 30), raised some interesting points under the Rent Restriction Acts as regards property which once had been Crown property, but had since been parted with by the Crown. In 1915 the War Office had requisitioned the Well Hall Estates and erected huts there. In September, 1919, the defendant in this case became the tenant under the Crown of a dwelling-house at a rent of 7s. 6d. per week, a rent which, according to the report in *The Times*, had been raised to 9s. 2d. In 1928, the Crown sold the estate to the plaintiffs, and on June 1 of the following year, the plaintiffs had given the defendant notice to quit, with a notice of increase of rent to 10s. 6d., apparently under the Rent Restriction (Notices of Increase) Act, 1923, and the defendant remained on as tenant at the increased rent. On April 30, 1931, the plaintiffs gave the defendant notice to quit expiring May 11, and on May 22 brought this action to recover possession.

The County Court judge had found that a new tenancy was created when, on June 1, notice to quit and of an increase in rent was given to the defendant, but on the authority of a case decided on March 2, 1931, by a Divisional Court, constituted of two Lords Justices (Clark *v.* Downes, 145 L.T. 20), he held that the Rent Acts were not binding on the Crown, or on the assignees of a tenancy created by the Crown, and he had granted an order for possession. The defendant appealed from this decision, and the question for the Divisional Court was whether the decision in Clark *v.* Downes, which was binding on that Court, covered the case we are considering.

In Clark *v.* Downes the facts were the same as in this case save for two distinctions. There the tenants in occupation of the houses of which it was sought to obtain possession held their tenancies from the Crown as from 1924, the estates having been sold by the Crown in 1928, without any interruption by notice to quit until the proceedings were taken in 1931; and it was admitted that the Crown had had vacant possession after 1923. The decision in that case was that the Crown was not bound by the Rent Restriction Acts for if that was the case, section 12 sub-section (10) of the Act of 1920 would have been unnecessary. That sub-section provides that where possession of any dwelling-house has been taken by a Government department during the war under the regulations for the Defence of the Realm for the purposes of housing workmen, the Act is to apply to such houses as if the workmen in occupation thereof were in occupation as tenants of the landlords of such houses, and the Court also held that as the Acts operate *in rem* and not *in personam*, if the principal Act did not apply to the premises neither did the Act of 1923. But in the judgments delivered in that case Lord Justice Romer said: "The Acts not binding the Crown, it is the duty of the Courts so to construe them that the Crown and its property are in no way prejudicially affected by the Acts. Now, if the learned county court judge is right, and these houses became subject to the operation of the Acts, the moment they passed out of the ownership of the Crown it follows that the reversion to the houses while in the possession of the Crown was worth considerably less than it would have been but for the Acts. The Acts so construed therefore would prejudicially affect the property of the Crown. Having regard to what I have said, the Acts therefore should not be construed in that way." It was apparently upon this dictum that the county court judge in the case we are considering felt compelled to hold that the Acts applied to assignees of tenancies created by the Crown, but the Divisional Court reversed his decision, distinguishing the case of Clark *v.* Downes on the ground that the exemption could only be extended to the duration of a tenancy which was in existence when the property was sold. Here a new tenancy had been created after the sale by the Crown in 1928, viz., in 1929, and that being the case the Acts could no longer operate to the disadvantage of the Crown, and the house was held to come under the Rents Acts, and the order granting possession was set aside.

County Court Jurisdiction in Partnership Actions.

As it is of importance to parties to disputes to obtain remedy in the least expensive manner—that is, in the county courts—we may very briefly draw attention to the case, Rex *v.* Judge Lailey, *ex parte* Koffman (*Weekly Notes*, January 2, 1932). There an action had been brought in the county court for a declaration of partnership, an account, and for the sum of £47 0s. 2d., the plaintiff's share in the partnership. In the claim it was admitted that the partnership had been dissolved before action brought, but the defence was that no partnership agreement had been entered into at all, and the defendants further took the objection that the court had no jurisdiction to entertain the action as section 67, sub-section (7) of the County Courts Act, 1888, did not apply unless a partnership existed. The county court judge had held that, as there was a dispute as to the existence of any partnership, he had no jurisdiction to entertain the claim, and he dismissed the action, with costs.

The plaintiff then obtained an order *nisi* for a *mandamus*, and the Divisional Court held that the county court had jurisdiction and made the order absolute that the action should be heard (*Weekly Notes*, Decem-

ber 5, *sub nomine* Koffman *v.* Sunshine and another).

The defendants appealed against this order and the Court of Appeal affirmed it, holding that the county court judge had power under the section to decide whether there was a partnership agreement in the first place, and then, if that was established, to deal with the dissolution or winding up as fully as could the Chancery Division.

It may here be noted that the limit in amount to give jurisdiction contained in sub-section (7) of section 67 of the County Courts Act is that the whole property, stock, and credits of such partnership shall not exceed in value £500.

There has, however, been a sequel to this litigation, for then the plaintiff brought a motion before a Divisional Court (*Weekly Notes*, January 16), asking that the defendants should be ordered to pay the costs thrown away in the county court by the contention having there been upheld that the court had no jurisdiction. On this motion the Court held that as no Order had been made in the Divisional Court as to the costs in the county court, and Order 58, rule 6 of the Supreme Court rules had no application to the facts of this case, the Court had power under section 131 of the County Court Act, 1888, to order the defendants to pay the costs of the abortive proceedings in the county court. Parties who take objection to the jurisdiction of the Court, it will be seen, run the risk of having to pay the costs of proceeding rendered abortive if on appeal it is held that the objection was not well founded.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

QUESTIONS.

Tile Hanging.

SIR,—I should be glad of advice as to the lap desirable for vertical tile hanging in a fairly exposed situation, also the amount of nailing necessary. Should the vertical surface be felted before battening?

YOUNG ARCHITECT.

Decorating Asbestos Sheeting.

SIR,—The walls and ceilings of a house are lined with asbestos sheeting. The property was new about eighteen months ago. The sheeting is treated with distemper, which, in parts, is flaking off. It is desirable that the property should be redecorated, and it is proposed to distemper again, all except bath-room and water-closet, which would be better painted and enamelled. Would a reader please outline for me the best means of successfully accomplishing this redecoration, and say whether it is necessary to scrape off all existing distemper. Any remarks re petrifying solution would be appreciated.

P. W. H.

Acoustics of Room.

SIR,—I send herewith a plan of a large room in which the acoustics are very bad. The stanchions shown square on the plan are spaced at 30 ft. centres over the whole of the room, whilst the ceiling (which is 14 ft. high) is divided into bays by means of beams having a depth of 2 ft. I am desirous of so treating this room that a speaker standing at point "A" could be heard over the whole of the room. One suggestion I had in mind was the installation of a microphone at point "A," with loud speakers on each of the columns—but I would prefer to deal with the matter in some other way. Perhaps some of your readers will have ideas as to the best means of overcoming the difficulty ACOUSTICS.

Question of Construction.

SIR,—On the question of building dry walls at low cost, may I invite opinions on the following scheme:—I have to design a number of small electrical sub-stations at a minimum cost compatible with a decent exterior. This entails facing with good stocks, as rough-cast is in this case taboo.

Instead of the usual 9 in. solid wall, I propose to specify two 4½ in. walls bonded with galvanised ties, but with no cavity. As compared with English bond, this saves 48 headers per sq. yd., thus using 24 fewer facing bricks and saving about 1s. per sq. yd. (the difference in cost between stocks and Flettons). The ties at 2 per sq. yd. would cost about 1½d. So much for economy.

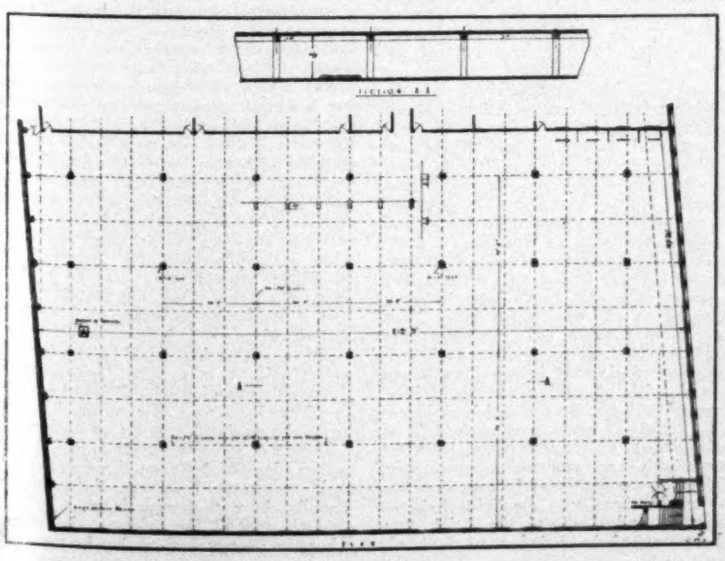
My experience of 9 in. solid walls, in cement mortar but unrendered, is that the headers alone conduct the rain through; hence, by eliminating headers, a dryer wall should result, with a saving in cost as set out above. The buildings are single-story and the only load on the walls is the roof load. The mortar will be 3 : 1 sand and cement.

The question in doubt is whether the central vertical joint should be flushed up to form a kind of vertical dampcourse, or left void as a kind of cavity. I believe a recent report of the Industrial Research Department on weather resistance advocates the void. In this case there is no question of conforming with by-laws, and the buildings are not for human habitation, but should be dry enough to save any ironwork attached to the walls from rusting. G. F.

Columbian Pine.

SIR,—I have noticed in some Columbian pine doors cavities filled with a brownish-coloured oily deposit. Could you tell me whether this is any form of incipient decay, and the appropriate treatment in such case?

SUPERVISION.



ANSWERS.

Building Line Question.

[ANSWERS TO "X. Y. Z.," FEBRUARY 12.]

SIR,—Your correspondent should examine the town plan of the district for prescribed building line. In the absence of the latter, it would appear from the information given that the local authority is acting *ultra vires*, in which case an appeal to the Ministry would appear desirable. A. B. C.

SIR,—Questions of this character are difficult to answer without knowledge of all the relevant facts. The Courts have on occasion restrained unreasonable disapproval of plans by local authorities, but "X. Y. Z." must be certain of his position before moving.

In 1895 (R. *v.* Fullwood, L.B. 72, L.T. 592) it was held that a residence 62 ft. back from side of street was not near enough to control the building line, and the writer believes there has been a similar decision since at an even less distance.

It would be helpful to his case if "X. Y. Z." could ascertain whether the 20-ft. building line was shown on the road lay-out when this was approved by the Council. In any case, good advice is essential should the local authority continue obdurate. S. HATHAWAY.

Copper Tubing.

[ANSWER TO "HEAT," JANUARY 22.]

SIR,—Light-gauge copper tubing with cone form of soft copper joint works out on the job cheaper than lead and very slightly more than galvanised iron. The labour costs are very light, if the right type of fitting is used in which there is some play, avoiding exact lead length cutting, and a type of joint which can be renewed. All types of fitting do not fulfil these conditions. Your correspondent should consult a really intelligent and progressive plumber. WATER.

Pantiles.

[ANSWER TO MR. D. A. FORSTER, FEBRUARY 19.]

SIR,—With reference to Mr. D. A. Forster's reply to "W.," I should like to point out that his remarks in the main are applicable only to old English pantiles. A much lighter and less expensive roof can be constructed of interlocking improved pantiles, which are available in a number of different colours. With this type of pantile there is no necessity to torch and point or to use vertical battens. Furthermore, pitches of 30 and less are frequently employed with good effect and considerable economy.

A. V. W.

Oak Doors and Gates.

[ANSWERS TO "W. A.," FEBRUARY 19.]

SIR,—Apply a solution of oxalic acid. Leave it on for twenty-four hours and wash off with a sponge or brush. JOHN M. FIFE.

SIR,—The question is what your correspondent means by the shade of "new oak." If he really means brand new, the only thing is to re-wrought the surface and then twice varnish. If he means merely to lighten, then pickling with caustic and liming will probably meet the case. TREATMENT.

Staining Asbestos Cement Slates.

[ANSWERS TO "J. M. M.," February 19.]

SIR,—The trouble is that the better the slate the less porous its surface, and therefore the less suitable for holding a surface treatment. The chances are that a couple of coats of wood preservative stain, being of less specific gravity than creosote, would penetrate more efficiently into the pores of the slates and gain a more permanent tone.

STAIN.

SIR,—In order to secure a permanent rich dark brown colour, J. M. M. should obtain a solution of 1-120 ferric chloride and brush or spray it on to his roof. The tiles should be reasonably clean before the application.

JAMES B. ROBERTSON.

THE BUILDING TRADE

THE LESSONS OF EXPERIENCE.—IX

By J. R. TAYLOR.

DAMP CURES (*continued*).

To nearly all rules there are exceptions. The rules to which no exceptions have so far been discovered are themselves exceptions. But the discovery of an exception to a rule that has hitherto been thought to hold good, sometimes attracts more attention than does the continued quiet operation of the general rule itself, and at such times we are a little liable to be stampeded into abandonment, or at least into mistrust, of traditional usages hitherto accepted as being consistent with sound practice and good workmanship. In regard to new brickwork built in lime mortar, the value of pressed and weathered joint pointing has been seriously questioned, and many architects are now showing a decided preference for the struck off or wiped off flush joint formed without pressure. It is claimed that it is as weather resistant and lasting as the weather joint and looks better when used with some classes of bricks. It is not proposed to discuss these claims, but merely to say that it is found to be very difficult to get satisfactory results with it when old work is in need of repointing, and that the usual effect is much the same as that which is obtained by the preliminary filling up of joints prior to colouring and tuck pointing old brickwork.

This being so, it would seem that in some cases there is a danger that the exaggerated thickness of joint sometimes indulged in will, when the time comes for repointing, give a good deal of trouble. But, on the other hand, too thin a joint also makes repointing in a satisfactory manner very difficult. These very thin joints are frequently found to be associated with machine-pressed facing bricks. It is difficult to rake them out properly without injuring the edges of the bricks, and it is also difficult to ensure that sufficient water will be splashed in to give a good bond to the new mortar with the old bricks. If water is driven in with a hose-pipe and spray nozzle the brickwork is apt to be stained with lime washed out from the back of the joint. In such circumstances it is not, of course, impossible to get satisfactory results, but where the order is placed as the result of competitive tendering it may prove to be very difficult.

In regard to the efficiency of repointing as a remedy for damp, the general rule might be very cautiously stated thus: If the building has existed for a number of years, during which time it was for a considerable period reasonably free from damp, is not subjected to more than average exposure, nor to any new exposure, and except for an obvious need of repointing, the brickwork is otherwise sound, then success will usually attend repointing properly carried out. But in the condition here laid down as to average exposure we have something that is very debatable and on that of new exposure one that is even more difficult.

The effects of changes of exposure may be very far reaching, and such changes may arise out of circumstances which it would not be at all easy for most of us to trace. Though it deals with another subject, an interesting example is afforded by some experiences of the Research Station when engaged on establishing a theory in regard to wind pressure on roofs. It appears that instruments placed on the roof of a warehouse did not give results in agreement with those experimentally obtained at the test bench, unexpected eddies being found. These were attributed to the presence of a boundary fence. The question at once arises, how far some erection, extension or alteration in nearby property may set up new conditions of exposure that may have to be taken into account, particularly if shelter is reduced? But an even more subtle question comes from considering those unexpected eddies, and that is: How far may our neighbour's new garage be responsible for our smoky chimney? Be that as it may, subject to the conditions laid down and to the use of common sense, the builder may go on prescribing repointing as a remedy for damp walls with the same confidence as hitherto, and where his experience warrants him in doing so, may, on suitable occasions, use Portland cement for that purpose. In rapid-hardening cement he may sometimes find considerable advantages. Where the builder has to find a remedy for admitted damp in a new wall, and it is obvious that condensation is not the real trouble, he is frequently put in a position of considerable difficulty. It may be desired that nothing shall be done that will radically alter the appearance of the brickwork, and yet that the cure shall have a reasonable degree of permanence. In such cases his difficulties are much added to if the customer is insistent on the treatment being carried out at other than suitable times. There are preparations marketed which are said to be effective when applied at any season, whether winter or summer; but for one of the oldest of them it is laid down that success cannot be expected unless it is applied in warm, dry weather. With all these preparations it is of the utmost importance that the maker's instructions in regard to their use should be strictly complied with.

In general, it can be said that these preparations have greater value than can be readily demonstrated under test. In some cases, buildings in the first year after being built and occupied give rise to considerable anxiety as to their final resistance to the penetration of rain, and particularly so where they have been built in wet weather. The walls seem to become so nearly fully saturated that for some time afterwards it needs but a wet day or two to occasion alarm. Later, having once properly dried out, they are found to be for practical purposes very much more resistant; that is to say, that although rain may enter the work just as easily as ever, yet it does not become visible inside. The water may still reach the inside of the wall, but in such very small quantities as to be invisible and easily carried off by the warm air in the house. In such cases it has been found that an application of one of these damp-resisters has much reduced the time needed for drying out the walls, and very quickly served to assist in the removal of all appearances of internal damp.

In many cases the most obvious remedy for walls permitting the penetration of damp in considerable quantity and over large areas is external plastering; and this is now nearly always carried out in cement mortar, though some prefer lime mortar rough cast on a cement mortar backing. The greatest enemies to successful treatment are insufficient preparation, dirt and overhaste. In overhaste may be included want of proper curing. To prepare an old wall properly for the reception of cement rendering is a costly process; and as the work more often than not has to be carried out at competitive prices it is often more or less neglected. The plasterer finds that internal walls can be covered without raking out the joints, and if asked both to rake out and hack brickwork for external work may regard it as being in excess of requirements. But for good work both these processes are necessary, and should be supplemented by a good scouring with wire brushes. The joint between the cement rendering and the brick face should be regarded as being of first-rate importance. In floating on concrete floors it has for a generation or two been constantly laid down in specifications that the best results are only obtainable if the succeeding coat or coats follow on while the concrete is green. This suggests that for external cement work to walls it is not necessary or even desirable to let the first coat thoroughly harden before the second is applied. There is, however, a distinction to be made between two- and three-coat work. If the second coat is not final but to be followed by a third, then the second should follow the first within twenty-four hours. It is necessary, perhaps, to make some distinction between hardening and drying. Rarely is any attempt made to provide curing conditions for the first coat, but it has been noticed that cement rendering carried out in the spring gives better results on average than that carried out in hot, dry weather. Some crazing is almost sure to take place, and it would be interesting to know whether this could not be confined to the first coat and an impermeable surface be formed by a number of later applications of very thin coats discharged from a cement gun. Repeated coats of cement wash certainly do much to waterproof brickwork. When the second coat is applied, the first should be liberally dosed with clean water, and in the summer the work should be protected from the direct rays of the sun. After setting and while hardening, the work should be kept moist, and this is best done with the aid of a hose and fine rose spray. If the protection consists of sheets, no harm will be done by thoroughly wetting them where they are, as is sometimes the case, hung from the brackets of projecting eaves gutters. We should hear a great deal less of the failure of cement rendering to keep out rain in very exposed situations if sufficient skill and care were always used at the beginning. Local failures frequently follow on poor detailing, but consideration of these must be postponed. It has been shown that rapid hardening cements offer considerable advantages when used in concrete, and it is at least probable that some benefit would be derived by using these cements in stucco and rough cast.

The subject cannot be left without touching on the question of waterproofing admixtures to cement mortars. It is said that equally satisfactory results can be obtained by proper grading and workmanship under competent supervision without help from these waterproofers. Nevertheless, it is just as true to say that under average conditions in the field better average results will follow when waterproofers are employed than when they are not. Under average conditions it is for practical purposes all but impossible to preserve ideals, and that this is the case is borne out by the high factor of safety that has been for generations insisted upon by architects and engineers in their specifications. If it were not so it would be possible to build with very much less material than is at present employed. It all comes to a single point in the end, and that is that when necessity for a given quality is absolute it is less costly in the long run to adopt methods that make some allowance for want of proper handling; methods that may be said to be more or less fool-proof. In building construction it is always necessary to bear in mind that as things are it is far from being possible to have every individual operation closely supervised by men fully trained, and also thoroughly experienced. It is not easy to put the difficulty into a few words, but perhaps it can be made clearer by an analogy.

Makers of strong-room doors find that owing to the close fit between the door and frame it is very easy to upset them in fixing. Usually the wall opening is left a little larger than the overall dimensions of the frame, and when the door and frame has been reared and

plumbed with minute accuracy it has to be grouted in with cement. In order to resist even a very slight expansion of the cement mortar (grout) the jambs of the frame have to be accurately strutted apart, and great care is necessary to ensure that the wedges are neither overdriven nor too loosely fitted. This all seems to be a very simple operation, but in past times so often have doors been found to be too tight after the fixing has been done by the builder's men, that most makers now insist on their products being fixed by their own men, even though this entails long journeys and considerable additional expense. So it is with all work requiring exceptional care where results are expected to be obtained that are easily reached by the scientific worker but not so easily and certainly by the average workman of average skill. And as it has been repeatedly shown that concretes and mortars may fail, even though handled by specialists, anything that tends to decrease the number of such failures by providing a margin to cover small errors in method is welcomed by the builder.

(To be continued.)

SMOKY CHIMNEYS

SIR,—I have read Mr. Taylor's letter in last week's *Builder*. The device he mentions is rather interesting, but he does not give any reasons for its use, or theory as to its action. A short account explaining this would not, I think, be amiss. For a partially-blocked flue, or for one with its top in a region of high pressure, due to its being to windward of a more or less vertical obstacle, the device would be useless or worse than useless; but for a more or less straight, roomy flue, with its top freely exposed to a wind blowing across it, an improvement might be expected.

The reason and theory underlying its use are as follows:—It is not generally known but is, nevertheless, true, that a wind blowing across (not against) a chimney pot has a suction effect, and has a tendency to increase the chimney draught to more than the fresh air inlets to the room can supply. The air in the room is consequently in a way like a stretched spring, and as soon as the force of the wind abates slightly air is drawn back into the room from the flue.

A right-angle bend absorbs about 90 per cent. of the energy represented by the velocity of the current, and consequently acts as a brake, lessening the upward velocity of the current during the gusts, and the downward velocity in the intervals between the gusts, and so damping out partially, at least, variations in the pressure of the air in the room. The device in question would, in my opinion, be better near the top of the stack, as this would have the effect of increasing the size of the room, and more of the variations of pressure would be damped out before reaching the fire.

In regard to leakage from one flue to another, this can only occur when there is a lower pressure in the latter. This only happens when the current in it has a greater velocity (either upward or downward) than that in the former. Of course, if the greater velocity be upward, it does not matter, as any leakage of smoke is carried out at the top. A downward velocity is produced if the flue or the room is very cold, but if the flue is alongside another flue it is usually warm enough to prevent this.

The more usual cause is a shortage of air inlets to the room with the fire burning, which causes the chimneys of adjacent rooms without fires to act as inlets. In many cases the pargetting is blamed, when the trouble is really at the chimney top, due to the flue acting as inlet, drawing in part of the smoke from the other chimney in which the fire is burning. This may sometimes be prevented by raising the pot on the working flue so that the downdraught flue draws its air from a lower level. A much better way, however, is to rearrange the inlets and so prevent the downdraught altogether.

JAMES STANWORTH,
University of Bristol Research Station.
Campden, Glos.

BRITISH INDUSTRIES FAIR, BIRMINGHAM

A REVIEW OF EXHIBITS.

IT is a significant and welcome gesture that at a critical period such as the present, when the prosperity of the country would seem to be bound up with the recapture of our export markets, the number of exhibitors showing at the Heavy (Birmingham) Section is greater than in any previous year. The number is 1,027, which is 60 more than in 1931. To accommodate this increase, new £20,000 extensions have been added to the buildings; these include a royal room, special committee room, new dining-rooms, and large gas- and electrically-equipped kitchens. The roads round the Fair have been widened and the approach by the Chester-road enlarged, and the Birmingham Chamber of Commerce is to be heartily congratulated on their efforts to make this year's Fair the greatest success yet.

But we must express one criticism: That is, that in subsequent years every effort should be made by exhibitors to have their stands ready, with representatives in attendance, by whatever day is fixed for the Press view. It is hardly good policy for stand-holders to present to inquirers only an expanse of draping cloth. As far as could be seen, the Fair gives every indication of being a comprehensive and well-arranged exhibition. Among the new or improved articles displayed may be noted:—Chromium-plated automatic door-closers at a greatly reduced price; British-made mass production doors of Canadian pine to compete with Oregon pine doors from the U.S.A.; metal-faced plywood; glass roofing tiles; an all-metal house; a new form of seating made of sponge rubber (being used at the Shakespeare Memorial Theatre); cast-iron road sections; and storage heating by paraffin under pressure. This is indicative of the up-to-date quality that the Fair possesses, and architects and builders' merchants, especially the latter, will not find a visit to Birmingham wasted.

We append brief notes on some of the more important exhibits:—

Ironfoundry.

The Fair contains some splendid ironfoundry, especially in the form of cookers, combination fires and stoves, etc. ALLIED IRONFOUNDERS, LTD., show on Stands 10 E and 10 D a large variety of their specialities, which include a complete sanitary section, new designs for boiler cookers and stoves (of which the "Janus" combination fire, cooker and boiler appears a job worthy of close attention), and a special display of "Trilite" electric glowing fires. CARRON COMPANY have on view on Stand 23 H an interesting and varied display of their extensive range of manufactures. Occupying a prominent place are some fine examples of the company's two combination grates—"Carronia" and "All-In." These are shown complete with mantel, tiles and kerb, and in the finishes displayed prove an effective adaptation of beauty and utility, combined with labour-saving. The two Carron portable ranges, "Beetonette" and "Carron Dover," finished in mottled enamel, will have an added interest, especially in their utilitarian appeal. The display of fire-grates should also interest a wide circle. Four baths are displayed, two of which are in colour. Some space is devoted to gas cooking and heating appliances. Here is shown a gas cooker all enamelled and fitted with the "Carrontrol" heat regulator with which some successful results have been achieved. A feature of the gas mantel registers, which are shown enamelled in imitation of wood, is that this finish is unaffected by heat or other climatic conditions, while they are also easily cleaned. Electrical cooking and heating appliances find a prominent place in the Carron display. A varied selection of fires is shown ranging from the popular bowl type to high-class period models. The whole stand is surrounded by structural ironwork, manufactured and erected by Carron Company.

Combination grates form the principal display on Stand 8K/1, where Messrs. SAMUEL SMITH AND SONS, LTD., show examples of their "Foresight," "Twin-Oven," "Solo-Oven," and "Mity-Oven" grates. Altogether there are nearly twenty models to be seen, and all are of the same construction up to the hot-plate, differing thereafter in the amount and sub-division of the space above. For all types of small house, from the artisan's dwelling upwards, there is a model suitable, and the wide range of tilings obtainable leaves nothing to be desired on the score of appearance. Attention should be paid also to the "Foresight" boiler-grate, fitted with a standard boiler capable of supplying up to thirty-gallon cylinders and working off what is, in appearance, an ordinary living-room grate. TRIPLEX FOUNDRY, LTD., are showing at work, on Stand 10G/1, their "S" pattern grate, fitted with a specially powerful boiler capable of heating an eighty-gallon indirect cylinder. The "C" pattern grate is shown with the Triplex No. 13 boiler, which, in addition to heating a thirty-gallon calorifier for domestic purposes, has fitted to it three radiators. Daily cooking demonstrations are given, and an expert staff is in attendance to give any assistance required in connection with household cooking or water-heating facilities. This is a service of which builders will advantageously avail themselves. The exhibits on Stand 10A/1, that of Messrs. ALLAN URE AND CO., LTD., include the "Ure" back-to-back grate and the "Ure" interior cooker; while a new invention makes its first appear-

The "Ure" back-to-back grate with combination clothes boiler.

ance at this show—the "Ure" back-to-back grate with combination clothes boiler. This exhibit is particularly interesting, and its economy and compactness should make it a "selling point" in the small house. One fire heats the oven, the clothes boiler and the hotplate, enabling cooking, boiling and washing to be done at the one time and from one fire at a third of the cost. The whole combination is very compact, as can be seen from the illustration, and greatly increases the working space in the scullery. The width of brickwork opening is only 45 in. Working demonstrations of all the exhibits are being given daily. On Stand 8C/3, two stoves, No. 51 "Yorkist" and No. 72 "Dalesman Yorkist," are displayed by Messrs. WILSON AND MATHIESONS, LTD. These have been designed to meet the requirements of general household cooking and baking, and are strongly constructed and tested so as to be practically free from expense for repairs—a feature which has resulted, we believe, in their adoption for a large number of housing schemes. Some standard examples of this firm's "Swan White" baths and lavatories, and a range of fittings complete a varied and useful exhibit.

Heating, Lighting, Refrigeration, etc.

Visitors to the gas industries section at the Fair, Stand 12 G/1, will be able to obtain information on the use of gas in home and industry from a central information bureau.

This bureau has been provided by the BRITISH COMMERCIAL GAS ASSOCIATION and members of the Society of British Gas Industries. A number of salesmen, each a specialist, are on duty to assist visitors. A set of photographs on the bureau enables visitors to get a rapid survey of the manifold applications of gas, and the provision of seats for the public makes it possible for them to discuss in comfort domestic and industrial problems with the salesmen. A special display is made of gas-operated refrigerators, and another effective exhibit on the bureau is a fountain of steaming hot water, which illustrates the application of gas to water heating. The use of gas for cooking is excellently demonstrated. On Stand 21 H, the BRITISH ELECTRICAL DEVELOPMENT ASSOCIATION provide an inquiry bureau, where visitors can obtain full information upon the applications of electricity to lighting, heating, cooking, etc. Gas-operated refrigerators and ice-cream conservators are on show at Stand 11 K/2, where ELECTROLUX, LTD., make a useful display of part of their range of refrigerators, a feature of which is the absence of mechanism, with silent and continuous operation. These refrigerators are made at Luton, Beds. The HURRY WATER HEATER CO., LTD., on Stand 11 K/3, display a range of gas-heated hot-water circulators for domestic and industrial use. Instantaneous water heaters and wash coppers in various finishes are also shown. The "Hurry" dual purpose wash coppers displayed provide hot water for washing clothes and also supply the bath. The "Hurro" circulator shown can be put to many and varied uses; it can be used in conjunction with the back boiler to a coal fire for the purpose of maintaining the heat of the water in the hot-water storage tank during the cold winter nights, and in the summer it will supply the required hot water when it is not desired to have a coal fire burning. From it can be worked, so it is claimed, any system of hot-water radiators. Copper pipe fittings of the "Securex" type are displayed by Messrs. JAMES H. LAMONT AND CO., LTD., on Stand 15 C/2. These fittings are suitable for light and heavy gauge copper tubes, for hot and cold water supply and steam heating. As an example, we learn that the ¾ in "Securex" coupling, fitted with 19 S.W.G. copper tubes, are tested to stand hydraulic pressure of 5,000 lbs. per sq. in., a test made against a dead end. Heating engineers unfamiliar with this coupling should inspect this stand for themselves.

Those architects who are engaged upon the problems of insulating buildings against sound, heat and cold should look into the merits of "Riverbank" building blanket, which is displayed on Messrs. JOSEPH STEPHENSON AND CO. (LONDON), LTD.'s Stands 8 G and 8 H. "Riverbank" Quilted Building Blanket is stated to be the original Empire eelgrass insulating material to be introduced to the English market. "Riverbank" blanket is flexible and is made of cured Nova Scotia eelgrass (a seaweed), quilted and stitched between sheets of strong kraft paper in the form of rolls measuring 28 yards by 1 yard, containing 250 square feet. Manufactured in single, double and triple ply, it is fire resistant and decayproof, and by reason of its natural iodine content will not harbour insects or vermin. Messrs. ASHWELL AND NESBIT, LTD., make a feature, on Stand 17 H/3, of the "Automestic" oil-fired equipment for the provision of even heating and constant hot-water supply at a cost which is said to compare favourably with solid fuel, with freedom from dust, dirt and stoking troubles. The equipment uses the cheapest grades of fuel oil marketed in this country; it gives constant, silent service without attention. A control is placed in a convenient room and automatically stops and starts the plant so as to maintain a set temperature throughout the house. The display includes a selection of steam cooking apparatus, c.i. tanks and trench covers, pumps and valves. Messrs. PARKER, WINDER AND ACHURCH, LTD., on Stand 16 H/2, demonstrate the "Parwinac" British oil-burner for central heating, with a choice of fully-automatic, semi-automatic and hand-controlled equipment. There is a wide range of burners from 50,000 B.T.U.'s to 3,000,000 B.T.U.'s per hour. This plant burns semi-crude oil. The same firm, on Stand 4 A/4, is making a feature of the "Page" chromium-plated automatic door closer. In size 9 in. by 1½ in., this door closer should meet the demand for a low-priced oil door-check, as it is suitable for light doors up to 2 in. thickness.

Metal Work.

Stand 19C, that of Messrs. FREDK. BRABY AND CO., LTD., provides examples of the application of metal to building and other purposes. The major portion of the stand is built of this firm's latest production, "Eclipse" metal-plywood. This is composed of plywood, covered with galvanised light sheet steel, specially rolled and prepared in their own mills at Glasgow. Examples of this and various other types of metal covering of plywood are shown in the panelling of the office, the signboards, and other parts of the stand and exhibits. Other features of the exhibit include bronze doors and grilles, steel doors, and various types of metal windows, a pressed steel staircase and landing, ornamental railings, and an approved pattern fire-escape stair. Another exhibit is a portion of roof covered with fish-scale pattern copper tiles, and surmounted by a ridge ventilator, made entirely from copper sheets, and a special display is made of the "Nimble" garden barrow, constructed of 22 gauge galvanised sheet with flat steel frame. Messrs. G. A. HARVEY AND CO. (LONDON), LTD., show on Stand 9K/3 an extensive range of perforated metals. Ornamental metalwork shown includes radiator covers, grilles, ventilating panels and pipe guards, all in bigger demand than ever before for hotels, mansions, offices, luxury liners, etc. This firm specialis also in all kinds of plant needed in food manufacture and produce vertical processing retorts, vacuum drying, evaporating and distilling plants, sterilisers, etc. Another feature is steel equipment for office and works, fire-resisting, hygienic, and proof against vermin. It is British made. Constructional, alloy, and other special steels are shown on Stand 14C/3 by UNITED STEEL COMPANIES, LTD. "Stribar" reinforcement is also shown here, being steel reinforcement of the type recently supplied for the new Ford works at Dagenham.

Cement, Concrete and Roads.

Concrete-making plant is well represented. BRITISH REINFORCED CONCRETE ENGINEERING Co. show an excellent display of cast concrete, concrete block-making machines, concrete mixers, and their B.R.C. reinforcement for roadwork on the "Quarry to Road," outside the Exhibition buildings. Displays of finishes obtainable by the use of white and coloured cements are given by the CEMENT MARKETING CO., LTD., on Stand 13F. The method of securing surface finishes by the "Tintowell" spray process is also demonstrated. Coloured cement in use can be seen in the "Quarry to Road" section. Messrs. JOSEPH FREEMAN, SONS & CO., LTD., demonstrate on Stand 13G/2 "Cementone" colours, waterproofers and decorative finishes for cement, concrete, plaster, brick, stone, magnesite, etc. These can be used either by incorporation in mixing or by surface application. Roadmaking plant *in extenso* is found on Stand 20E/1, where Messrs. GOODWIN, BARSBY AND CO., LTD., show examples of their well-known mixers for tarmacadam and concrete, crushers, screens, granulators, elevators, conveyors, gravel and sand washers and dryers, vibrating screens, brick crushers, and concrete block machines—in short, an exhibit to delight the road engineer's heart.

The KLEINE CO., LTD., exhibit on Stand 14F/2 the Kleine system of reinforced concrete hollow brick floors, roofs and staircases (nearly 4 million yds. of which have been built in the United Kingdom). Architects carrying out factories should also examine the "Duromit" non-slipping and dustless surface flooring and pre-cast coloured tiles, which are designed to stand up to the hardest wear and tear. The LINER CONCRETE MACHINERY CO., on their Stand 21E/1, have a comprehensive display of their machines. They show three different models of the lighter type of mortar mill; several semi-wet concrete mixers are to be seen, and various patterns of their all ball-bearing, no-chains, open-drum concrete mixers. A crusher, friction hoist, block and brick-making machine, and a range of moulds are on show. In the "Quarry to Road" section, the new "Ram Loader" concrete mixer is shown in use; this is one of the latest developments in mixers, as all ropes, pulleys, clutches, etc., are dispensed with. As the loader reaches the discharging position, a vibrating movement takes place, which ensures a complete emptying of the hopper. A new type of water tank is also fitted. Other machines in this section are: semi-wet mixer, vibrator and stone moulder; these can be seen making concrete kerbs, flags, and stones for house-building, etc. In the "Quarry to Road" exhibit, Messrs. MARSHALL, SONS AND CO., LTD., exhibit the "Cummer" 4-ton portable asphalt plant, an excellent specimen of the modern portable machine of moderate capacity called for by contractors and councils for service when a move from place to place is desirable at short intervals. With this, continuous outputs up to 7½ tons per hour have been obtained without exceeding the drying and mixing capacity of the plant. Also on view is the "Marshall" 6-ton Diesel road roller. This has a two-cylinder, high-speed, four-stroke engine of the "cold-starting" type, which runs on cheap heavy fuel oils at the remarkably low consumption of .42 lb. per b.h.p. per hour. It has a quick reverse action for rolling on asphaltics, and three speeds in either travel direction. A smaller and totally different design of roller is exemplified by the "Marshall" "Manumit" motor roller. The model shown weighs 16 cwt., and a 12 cwt. model is also made. The power unit is a four-stroke "J.A.P." petrol engine. A bitumen kettle and a portable beam engine supplying power for asphalt plant complete the exhibit.

Messrs. FREDK. PARKER, LTD., exhibit, on Stand 21B/1, concrete and road-making plant. A special display is made of the Parker patent "Kubit" impact breaker. This, we are told, is entirely a departure from the usual principle hitherto employed in hammer crushers, the material being flung by the hammers against beater bars and broken by impact, instead of by the direct action of the hammers. In this way it is claimed that a consistent cubical result is obtained with less dust. Also shown is the Parker "Contra-Flow" washer, which turns to account the advantages to be derived from the contra-flow principle by having overcome the difficulties once associated with this method. Of the builders' plant exhibited, the Parker "Little Giant Six-Use Mixer," with barrow hoist, will already be known to many readers. "Parker" stationary and portable stone and brick-making machinery will also provide interest. RUSTON-BUCYRUS, LTD., in the "Quarry to Road" section, show the Ruston-Bucyrus ¾ cu. yd. Diesel dragline, on caterpillars. This is fitted with 35 ft. boom, and is worked by a 62 h.p. Ruston Diesel engine. This excavator can be used with various equipments. On Stand 21A, the same firm has a working exhibit of the new "Model 21B" ¾ cu. yd. Diesel dragline, also convertible. Special features are: Shafts in ball bearings, enclosed gears running in oil, and new caterpillar mounting. TWISTEEL REINFORCEMENT, LTD., exhibit, on the "Quarry to Road" section, the uses of their "Twisteel" reinforcement for roads. Over 1,000,000 sq. yds. of "Twisteel" are being used on the present East Lancashire road contract by the contractors, Sir Lindsay Parkinson and Co., Ltd.

[Our Review will be concluded next week.—ED.]

NEW BUILDINGS IN LONDON

Barking.—FACTORY.—A factory is to be built in River-road, for Messrs. H. Thomas and Co.

Battersea.—TENEMENTS.—The B.C. are about to proceed with preparation of bills of quantities for the third section of tenements of the St. John's College site.

Becontree.—PREMISES.—The L.C.C. has leased a site near Chadwell Heath railway station to the Advance Laundries, Ltd., 40, Oxford-street, W.1, for the erection of premises.

Brentford.—FACTORY.—Land adjoining the new goods depôt is to be developed as factory sites for the G.W.R. The work will be carried out under the direction of the Chief Engineer, Paddington Station, W.2.

Brentford.—PREMISES.—The Power Construction Co., Ltd., are to erect large factory buildings on a site in Gunnersbury-avenue.

Child's Hill.—SHOPS.—Messrs. J. and C. Codrington, 488, Kingsland-road, E.8, have prepared plans for shop premises. The site will have frontages to Cricklewood-lane and Sunnyside, Child's Hill.

Croydon.—FACTORY.—Messrs. D. Rowell & Co., Ltd., 14, Howick-place, S.W.1, are the engineers for a factory and offices at the rear of 44a, Gloucester-road.

Croydon.—SHOWROOMS.—New showrooms and offices are to be erected at the junction of High-street and Lower Coombe-street, for the Marsham Tyre Co., Ltd., 48, Charlotte-street, W.1. Plans have been prepared by Messrs. Hooker and Rogers, 4, High-street, Croydon. The contractors are Messrs. Grace and Marsh, Ltd., New Bridge Works, Waddon, Croydon.

Deptford.—REBUILDING.—Messrs. Paish, Tyler and Crump, 1, Addiscombe-road, Croydon, have applied for consent to the proposed rebuilding of 91 and 93, New Cross-road.

Edgware. — CHURCH. — Messrs. Gordon, Jackson and Lambert, 7, Gt. James-street, W.C.1, are the architects for a new Presbyterian church and hall in Heather-walk.

Edmonton.—FACTORY. — The Commercial Structures, Ltd., 38, Canal-road, N.1, are erecting a factory in Pretoria-road.

Edmonton.—PREMISES. — New showrooms and offices are to be built in Fore-street, for the North Metropolitan Electric Power Supply Co.

Farringdon-street. — RECONSTRUCTION. — Work has commenced on the reconstruction of 27, Farringdon-street. The architect is Mr. F. Harrild, F.R.I.B.A.; the contractor is Mr. C. R. Price, of 107, Bishopsgate, E.C.2.

Finchley. — PREMISES. — Messrs. North, Robin and Wilsdon, Townsend-house, Greycoat-place, S.W.1, are preparing plans for the erection of premises in High-road.

Greenwich. —ALTERATIONS. — H.M.O.W. have placed a contract with Messrs. John Mowlem and Co., Ltd., 91, Ebury Bridge-road, S.W.1, for alterations to the Research Station, Greenwich, S.E.

Hammersmith.—EXTENSIONS.—The General Motor and Tyre Co., 81, Queen-street, W.6, have leased a site at Riverside Wharf for extensions to their premises.

Hendon.—BUILDING.—H.M. Air Ministry have placed a contract for regimental and technical buildings with Messrs. J. Laing and Son, Ltd., Parklands, Mill Hill, N.W.7.

Hendon.—FLATS.—A block of flats are to be built in Finchley-lane, to plans prepared by Mr. A. J. Butcher, 2, Express-mansions, Edgware.

Hendon. — REBUILDING. — The licensed premises, "Railway Tavern," Hendon, are to be rebuilt, subject to approval. This scheme will be carried out by Messrs. Truman, Hanbury, Buxton and Co., Ltd., 91, Brick-lane, E.1. Plans are by the staff architect.

Hornsey.—CLINIC.—The Town Council are inviting tenders for the erection of a school clinic at the rear of the Broadway, Crouch End, N.8. Mr. W. H. Adams, Borough Engineer and Surveyor, has prepared the plans.

Ilford. — RECONSTRUCTION. — Premises at 104, High-road, are to be reconstructed. Plans have been prepared by Messrs. Donald J. Moss and Partner, 11, Queen Victoria-street, E.C.4.

Islington. — BUILDING. — The B.C. has placed a contract with Messrs. King and Stannard, Ltd., Friern House, Whetstone, N.20, for erection of an electricity sub-station in Berners-road, N. The architect is Mr. E. C. P. Monson, F.R.I.B.A., F.S.I., 120, Moorgate, E.C.2.

Kingston.—EXTENSIONS.—Mr. J. W. Spink, 20, London-road, Kingston, has prepared plans for extensions to the factory of Messrs. H. G. Hawker Engineering Co., Ltd., of Kingston. The builders are Messrs. Ides, Ltd., Empire-chambers, Richmond-road, Kingston.

Limehouse. — EXTENSIONS. — The Stepney B.C. are inviting tenders for extensions to the Limehouse electricity generating station. The plans are by Mr. B. J. Belsher, F.R.I.B.A., Borough Engineer.

Marylebone.—REBUILDING.—Messrs. Watney, Combe, Reid and Co., Ltd., Stag Brewery, Pimlico, S.W.1, have exchanged land with the L.C.C. for the demolition and rebuilding on another site of the "Richmond Arms," Richmond-street, Carlisle-street, N.W.1.

Marylebone. — REBUILDING. — Messrs. G. Head and Co., 40, Baker-street, W.1, are the architects for the rebuilding of the "Duke of York" public-house, 2, Gateford-street, W.1. The owners are Messrs. Truman, Hanbury, Buxton and Co., Ltd.

North Kensington.—FLATS.—The Borough Engineer has prepared plans, and the B.C. are now inviting estimates, for the demolition of 135 and 137, Lancaster-road, and erection of 20 flats on the site.

Paddington.—OFFICES.—New offices are to be built at Paddington Station, W.2, for the G.W.R. Co. Mr. P. Culverhouse, F.R.I.B.A., Paddington Station, W.2, is the company's architect.

Purley.—HOUSES.—Messrs. Thomas and Son, builders, Station-approach, Chipstead, Surrey, are to erect about 234 houses on the Purley Downs estate, to the plans prepared by their own staff.

Purley.—ADDITIONS.—Messrs. Thompson & Walford, Leadenhall-buildings, E.C., are the architects for alterations and additions to the Purley War Memorial Hospital.

Tooting.—ALTERATIONS.—Are to be carried out at 16-20, Tooting High-street, by Messrs. W. Mason and Son, Ltd., builders, Streatham Common, S.W.

Wembley. — HOUSES. — Messrs. Haymills, Ltd., 1, Grand-parade, Wembley Park, have acquired property adjoining the Barn Hill estate. It is proposed to erect a large number of high-class houses to the company's own plans.

NEW CINEMAS

Ellesmere Port.—Messrs. Douglas Minshull, Muspratt and Williams, architects, 6, Abbey-street, Chester, are preparing plans for a new cinema in Carnegie-street for Mr. T H. Bates, of the Hippodrome Cinema.

Edmonton.—Plans for the building of a super-cinema to seat 3,000 at Edmonton have been submitted to the licensing committee of the Middlesex County Council. A dance hall and tea-rooms are proposed. The cinema would have an entrance in the North Circular arterial road, Edmonton, and there would be a new car park.

Falkirk.—The Dean of Guild Court agreed to the proposal of the Falkirk Picture House, Ltd., to erect new buildings and alter the existing buildings known as the Pavilion Picture House, in High-street, the estimated cost of the proposed work being £2,000.

Guildford.—Plans are being prepared for alterations and additions to the Picture Playhouse Cinema, Guildford, Surrey. The architect is Mr. Clifford Aish, 22, Bedford-street, W.C.2.

Mill Hill.—Mr. P. H Bird, 6, Willifield-way, N.W.11, has acquired the Mill Hill Cinema, The Broadway, N.W.7, where he intends carrying out an extension and modernisation scheme.

Montrose.—Plans for the new super-cinema to be erected in John-street have been prepared by Messrs. Gordon & Scrymgeour, architects, 7, Ward-road, Dundee.

Pontypridd.—A new cinema, to seat 2,000, is to be erected on a site in Taff-street, Pontypridd, for a local syndicate, to cost £30,000. Plans are now in course of preparation, the architect being Mr. H. M. R. Burgess, A.R.I.B.A., P.A.S.I., 77, Taff-street, Pontypridd.

Reigate.—Plans are being prepared by Messrs. Marshall & Tweedy, FF.R.I.B.A., 4, Cavendish-place, W.1, in conjunction with Col. Jas. E. Adamson, L.R.I.B.A., 56, Victoria-street, S.W.1, for the erection of a new cinema.

BOOK REVIEW

Guide to County Court Procedure, being the second edition of "The Trader's Guide to County Court Procedure." By F. H. B. Chapman, revised by B. S. Hills. London: Sir Isaac Pitman and Sons, Ltd. Price 2s. 6d. net.

Law books for laymen sometimes resemble dangerous articles placed in the hands of a child being likely to do it harm, but the "lay law-book" before us is not at all open to this objection, as it is confined to giving a clear and succinct account of the procedure to be adopted for the recovery of small debts in the county courts, and its scope is clearly defined in the introductory chapter, where it is pointed out that although certain actions such as those under the Employers' Liability Act and proceedings under the Workmen's Compensation Act, have to be instituted in the county court, even where the claim exceeds £100, and certain Chancery proceedings can also be so instituted, with these actions the present volume does not deal, as it does not go beyond the recovery of debts, especially small debts, and the reader is further warned that there are special rules to be observed when bills of exchange, cheques or promissory notes are sued upon, which are too technical for the average layman, and these also are not included.

The work appears to be a very clear guide to the steps to be taken where it is desired to recover small debts, expressed in language which every layman can follow, and containing valuable hints. Such a guide is chiefly intended for plaintiffs, but more technical ground is entered when the subject of special defences is considered, but that subject is confined to a small space in the last chapter, where these defences are briefly indicated. Notice, however, has to be given of such special defences, so the layman confronted with a special defence will have time to consider whether he will summon professional aid then to deal with the matter. The work is wisely limited to matters on which the layman can usefully be informed, even if he decides to take professional advice, and we think it should fulfil its object of assisting in the recovery of small debts.

Institution of Electrical Engineers.

The Council of the Institution of Electrical Engineers have elected Mr. W. M. Mordey, past-president, to be an honorary member of the Institution. The Council have made the eleventh award of the Faraday medal to Sir Oliver Lodge, D.Sc., F.R.S., honorary member of the Institution. The Faraday medal is awarded by the Council of the Institution not more frequently than once a year, either for notable scientific or industrial achievement in electrical engineering or for conspicuous service rendered to the advancement of electrical science, without restriction as regards nationality, country of residence, or membership of the Institution.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1932

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Brick-layers.	Car-penters Joiners.	Plas-terers.	Slaters.	Plum-bers.	Pain-ters.	Lab-ourers.
Aberdare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Accrington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Aldershot	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Alfreton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Alnwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Altrincham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ashford (Kent)	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Ashington	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Ashton-under-Lyne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Aylsham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Banbury	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Barnsley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Barnstaple	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Barrow-in-Furness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Barry	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Basingstoke	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11
Bath	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Berwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bexhill	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11
Birkenhead	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Birmingham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bishop Auckland	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Blackburn	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Blackpool	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bognor Regis	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11
Bolton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bradford-on-Avon	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Braintree	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bridlington	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bromsgrove	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bromyard	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Bungay	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Burnley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Burton-on-Trent	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bury St. Edmunds	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11
Buxton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Canterbury	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11
Cardiff	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Carlisle	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Chelmsford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Cheltenham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chesterfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chorley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cirencester	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Clacton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Colchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Coventry	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cranbrook	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Crewe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cromer	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Darlington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Deal	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Denbigh	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Derby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Devizes	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Dewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Doncaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dorchester	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Dorking	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Dovercourt	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Driffield	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Droitwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dudley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Durham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
E.Glam.(Mon.Val.)	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ely	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Exeter	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Exmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Fakenham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Felixstowe	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Folkestone	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Frome	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Glossop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Gloucester	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Godalming	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11
Goole	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Gosport	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Grantham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gt. Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Grimsby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Guildford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Halifax	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Harpenden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Harrogate	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hartlepools	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Harwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Hastings	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Hatfield	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hednesford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Herne Bay	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Hertford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hitchin	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hoddesdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Holt	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Huddersfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hull	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hunstanton	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Huntingdon	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Isle of Wight	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Keighley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kettering	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Kidderminster	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Kings Lynn	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Leeds	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leicester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leighton Buzzard	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Lichfield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lincoln	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Littlehampton	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Liverpool	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Llandudno	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Llanelly	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
London—								
12 m. radius	1/7½	1/7½	1/7½	*	1/7½	1/7½	1/6½	1/2½
12-15 m. radius	1/7	1/7	1/7	*	1/7	1/7	1/6	1/2½
Loughborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lowestoft	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Macclesfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Malvern	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Manchester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Mansfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Margate	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Market Harborough	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Matlock	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Melton Constable	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Melton Mowbray	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Merthyr Tydfil	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Middlesbrough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newark	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Newbury	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Newcastle-on-Tyne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newcastle-u-Lyme	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
New Forest	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Newmarket	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Newport, Mon.	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nuneaton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Oakham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Oldham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Paignton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Peterborough	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ramsgate	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Redcar	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redditch	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Reigate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Retford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Ripon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Rugby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Saffron Walden	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
St. Albans	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
St. Helens	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sawbridgeworth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Saxmundham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Sevenoaks	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Sheffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Shrewsbury	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sittingbourne	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
South Shields	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stevenage	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Stockport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stockton-on-Tees	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stoke-on-Trent	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stourbridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stourport	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stowmarket	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Stratford-on-Avon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stroud	1/4	1/4	1/4	1/4	1/4	1/4	1/3½	1/-
Sunderland	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Swaffham	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Swansea	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Swindon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Tamworth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Taunton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Thetford	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Totnes	1/4	1/4	1/4	1/4	1/4	1/4	1/3½	1/-
Trowbridge	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Tunbridge Wells	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Uttoxeter	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Wakefield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Walsall	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Walsden	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Warminster	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Warrington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Warwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wells (Norfolk)	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Welwyn Gar. City	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
West Bromwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Weston-super-Mare	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Weymouth	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Whitby	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wigan	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Winchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wisbech	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Wolverhampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Woodbridge	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Worcester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Worksop	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Worthing	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wrexham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wycombe	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wymondham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
York	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½

*The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, as and from the 1st February, 1932, is 1/9½ per hour.

For Building Trade wages in Scotland, see page 410.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

FEBRUARY 29.

Balderston.—Painting.—Conservative Club, Cambridge-place. A. Stead, sec.

Carlisle.—Shed.—Toolshed and conveniences at Stanwix cemetery, for T.C. P. Dalton, City E. and S., 18, Fisher-st.

Chelmsford. — Headquarters. — Erection of London-rd., also alterations to "Inglenook," Marlborough-rd., for the Essex Army Territorial Association. The Secretary, Market-rd. Dep. £2 2s.

Docking.—Houses.—12 at North Creake, for R.D.C. H. East, housing architect. Dep. £1 1s.

East Kesteven.—Houses.—Leasingham, 2 pairs; Scopwick, 2 pairs; Martin, 4 pairs, for R.D.C. Council's Chartered Architect.

Galashiels.—Houses.—6 blocks of houses at Tweed-rd., for T.C. J. & J. Hall, architects.

Glasgow.—Painting.—District libraries, viz.:—Bridgeton, Dennistoun, Hutchestown, Maryhill, Parkhead and Whiteinch, for T.C. D. Stenhouse, T.C.

Glastonbury.—Repairs.—At Glastonbury Cemetery, for Glastonbury and Sharpham Joint Burial Board. G. Alvee, S., 21, Norbins-rd.

Harrogate.—Alterations.—At pulverising works, Dragon Junction, for T.C. C. E. Rivers, B.E. and S.

Hedge End.—School.—New Council school. Clerk, The Castle, Winchester. Dep. £1 1s., payable to Hampshire C.C.

Lanarkshire.—Lighting.—Electric light at convalescent home, Lanark, for C.C. P. C. Smith, County Housing and Town Planning Engineer, 13, Clydesdale-st., Hamilton.

London.—General Works, etc.—For the L.C.C. Clerk, County Hall, Westminster Bridge, S.E.1. Dep. £3.

Queensferry.—Houses.—28 at Hopetoun-rd. site, South Queensferry, for T.C. C. S. Paterson, B.S. Dep. £1 1s.

Upholland.—Houses.—Four houses in Sandbrook-rd., for U.D.C. A. Hunt, clerk. Dep. £1 1s.

Wellingborough. — Houses. — Robert-st. housing site, for U.D.C. E. and S. Dep. £1 1s.

West Riding.—Painting.—Internal painting at Wakefield institution, for C.C. West Riding Architect, County Hall, Wakefield.

MARCH 1.

Bedford.—Houses.—London-rd. housing estate. Borough Engineer, Newnham House, Horne-lane. Dep. £5.

Clare.—Housing.—6 pairs of non-parlour houses, for R.D.C. H. Brown Thake, architect, 10, High-st., Haverhill.

Derby.—Works and Repairs.—For H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. 10s. 6d.

Plymouth.—Garage.—Additional motor omnibus garage at Central Depot, Milehouse, for T.C. C. Jackson, General Manager and Engineer, Transport Offices, Milehouse.

Uruguay.—Slaughterhouse.—Large slaughterhouse and plant, for Frigorifico Nacional. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. No. G.X. 10927.)

Wolverhampton.—Houses.—Pair of houses at Cosford waterworks, for T.C. B. L. McMillan, Water Engineer and Manager. Dep. £2.

MARCH 2.

***Ramsgate.**—Reinforced Concrete Car Park, etc.—B.E., 16, Albion-pl. Dep. £2 2s.

MARCH 3.

Glasgow.—Houses.—102 at Govanhill, Riddrie and Wellmeadow, for T.C. D. Stenhouse, T.C.

Glasgow.—Heating, etc.—At Gorbals new district library, for T.C. D. Stenhouse, T.C. Dep. £2 2s.

Lichfield.—Building.—Two pumping stations in brick and concrete at Alrewas, for R.D.C. C. E. Mays, E. Dep. £2 2s.

Rochdale.—Painting.—Internal painting work at Marland Hospital, for C.B. B.S.

MARCH 4.

Crouch End, N.8.—School Clinic.—For the Hornsey T.C. Secretary for Education, 79, Crouch End-hill, N.8.

Newport (Mon.).—Rebuilding.—Demolition and rebuilding of "Cross Hands" Hotel, Chepstow-rd., for Phillips & Sons, Ltd., Brewers, 19, Station-st., Swalwell & Havard, architects and surveyors, 8, Pentonville, Newport (Mon.). Dep. £2 2s.

Portsmouth.—Building.—Refreshment chalet, club-house, club hangar at Municipal Aerodrome, for T.C. R. J. Jenkins, City E. Dep. £1 1s. each.

Uxbridge.—Housing.—60, and roads and sewers in connection therewith on Glebe housing estate, for U.D.C. William L. Eves, F.R.I.B.A., 54, High-st. Dep. £2 2s.

Wednesbury.—Houses.—16 non-parlour type, on Mesty Croft site, for T.C. A. Booth, B.E. and S. Dep. £2 2s.

MARCH 5.

Blean.—Housing.—16 semi-detached pairs of houses at Broad Oak, Sturry, near Canterbury, for R.D.C. F. A. Ward, S.

Dorchester.—Houses.—1 pair and 2 detached houses in Tubbs-rd., East Fordington, for Mill-st. Housing Society, Ltd. S. A. Jackson, architect, Dorchester. Dep. £2 2s.

Eastbourne.—Tiling.—Provision and fixing of white glazed tiling or glazed brick flooring to bottom of ladies' and gentlemen's swimming baths at Devonshire Baths, for C.B. L. Roseveare, B.E.

Roxburgh.—House.—House at Bonchester Bridge, near Hawick, for C.C. G. J. Sherriff, County Clerk, County Offices, Newtown St. Boswells.

MARCH 7.

Aberystwyth. — Demolition. — Of Albert House, North-parade, and erection on site of premises comprising 3 self-contained flats, for T.C. B.S. Dep £1 1s.

Doncaster.—Alterations.—At West Riding tuberculosis dispensary, for West Riding C.C. West Riding Architect, County Hall, Wakefield.

Hendon.—Fencing.—Fencing at Pinner-rd., Pinner, for R.D.C. Swannell & Sly, architects and surveyors, Rickmansworth.

***Isleworth.**—Houses.—140 on Lyon estate, London-rd., for Brentford and Chiswick U.D.C. Clerk, Town Hall, Chiswick, W.4. Dep. £2 2s.

Plymouth.—Repairs.—Repairs and alterations to premises at 1 to 7, Lucknow-place, for T.C. R. J. Fittall, T.C. Dep. £1 1s.

Slough.—Walls.—Taking down and rebuilding on new line, of dwarf brick boundary walls and piers with ornamental iron railings and gates, at Bath-rd. improvement No. 18 to police station, for U.D.C. A. Bromly, E.

Stranraer.—Houses.—8 blocks of 4 houses in Glebe-st., for T.C. A. Maclean Goudie, architect, 30, Lochryan-st. Dep. £1.

Westhoughton.—Painting.—Inside painting and decoration of administrative block of the Fall Birch Hospital, for Horwich, Westhoughton and Blackrod Hospital Committee. J. Dickinson, clerk to Committee, Town Hall, Westhoughton.

Winterton.—Houses.—16, on Roxby-rd. site, for U.D.C. A. M. Cobban, architect, Doncaster-rd., Scunthorpe. Dep. £2 2s.

Yeovil.—Houses.—10 non-parlour type at Preston-rd., for T.C. B.S. Dep. £1 1s.

MARCH 8.

Goole.—Houses.—12, at Swinefleet, for R.D.C. Architect, 6, Belgravia. Dep. £1 1s.

Hoddesdon.—New school at Rye Park, for Herts. C.C. County Surveyor, Hatfield, Herts. Dep. £2 2s.

MARCH 9.

Acerington.—Superstructure.—For Police Station, Fire Station and Firemen's Dwellings, for the Corporation. Town Clerk, Town Hall. Dep. £2 2s.

***Harlow, Essex.**—Post Office.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1 Dep. £1 1s.

Kensington, W. — Flats.—Lancaster-rd. Town Clerk, Town Hall, W.8. Dep. £2 2s.

***Letchworth.**—Houses.—At Eldefield, for the U.D.C Clerk, Council Offices. Broadway Chambers. Dep. £2 2s.

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EST: 1830

***Ramsgate.**—School.—At Northwood. T.C., Albion House. Dep. £3 3s. (payable to Corporation).

MARCH 10.

Ampthill.—Houses.—Eight at The Crescent, for U.D.C. Mr. E. E. Geeves, architect, Old Post Office-chambs., Cheapside, Luton. Dep. £2 2s.

Hinckley. — Houses. — 40, on Middlefield-lane estate, for U.D.C. J. S. Featherston, E. and S. Dep. £2 2s.

Nottingham.—Baths.—Washhouse and slipper baths, Main-st., Bulwell, for T.C. T. Wallis Gordon, City E. and S. Dep. £1.

MARCH 12.

***Chatham.**—Nurses' Homes.—At the Medway Poor Law Institution, for the Kent C.C. The Architect, Sessions House, Maidstone. Dep. £2 2s.

MARCH 14.

Enfield.—Demolition.—Of gun station cottages, The Ridgeway, for U.D.C. E. & S., 7, Little Park-gardens. Dep. £2.

London.—Heating.—Alterations and additions to forced circulation heating and hot water supply apparatus in "C" Block, Constance-rd. Institution, Camberwell, S.E.5, for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

Horley.—Hall.—Recreation hall, coal store and additions to administrative block at Farmfield Institution, near Horley, for L.C.C. Architect, County Hall (Room 3), Westminster Bridge, S.E.1. Dep. £2.

***Rainham.** — Houses. — For Romford R.D.C. Clerk, 16a, South-st., Romford. Dep. £2 2s.

Salford.—Houses.—96 houses at Wheater's Field, Lower Broughton-rd., Salford, and 94 houses at Gerald-rd., Pendleton, for T.C. City E. Dep. £3 3s. each

MARCH 15.

***Roundhay, Leeds.**—Telephone Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

MARCH 16.

Arbroath.—Additions.—Additions and alterations to High School, for Angus E.C. J. Eadie, Asst. County Clerk, County-bdgs., Forfar.

MARCH 17.

***London, E.14.**—Electricity station, Narrow-st., for the Stepney B.C. Town Clerk, Municipal Offices, Raine-st., Old Gravel-lane, E.1. Dep. £5 (bank notes).

Swansea.—Lighting.—Electrical lighting, etc., installations at new junior school at Baptist Well, for C.B. E. E. Morgan, A.R.I.B.A., Borough Architect, 3, Prospect-place. Dep. £2.

MARCH 19.

Oldham. — Electric Light Installation, etc.—Derker housing estate, for the Corporation. Chairman, Housing Committee, c/o Borough Engineer and Surveyor, Town Hall. Dep. £1 1s.

MARCH 21.

Isle of Wight.—Repairs.—Renewal of fender piles and repairs to quay wall at Trinity Wharf, East Cowes, for Trinity House, London. Secretary, Trinity House, Tower-hill, London, E.C.3. Dep. £1.

Nottingham.—Houses.—Booster pump house at Selston, also booster pump house at Normanton-on-the-Wolds, for T.C. F. W. Davies, Engineer and General Manager, Water Offices, Castle Boulevard. Dep. £2 2s.

MARCH 22.

***Brighton.**—Residence.—Poor Law Institution. Public Assistance Officer. Dep. £3 3s.

MARCH 31.

***Hastings.**—Extension to Municipal Hospital. B.E., 37, Wellington-sq. Dep. £3 3s.

APRIL 4.

***Rayleigh, Essex.**—Public Conveniences.—For U.D.C. Clerk, Council Offices. Dep. £2 2s.

NO DATE.

Andover.—Extension.—To market shed in Council Sanitary Yard, Bridge-st., for T.C. W. G. A. Clark, B.S.

St. Just.—Alterations.—At Infantry Drill Hall, 6, Cape Cornwall-st., St. Just.

Tenby.—Extensions.—To "Three Mariners" public-house. D. F. Ingleton, architect and surveyor, 9, Victoria-pl., Haverfordwest.

Truro.—House.—In Daniell-rd., for D. Strout. D. Strout, Tremore, Daniell-rd. Dep. £2 2s

MATERIALS, etc.

FEBRUARY 29.

Acton.—Highway Materials.—For T.C. B.E.

Bognor Regis.—Highway Materials.—For U.D.C. J. Draper, E. and S.

Hadleigh.—Road Materials.—For U.D.C. S.

Holburn.—Highway Materials.—For U.D.C. T. Stuart, clerk.

Inverness.—Road Materials.—For C.C. R. Robertson, C.S., 26, Bank-st., Inverness.

Leeds.—Lime, etc.—For T.C. S. Thornley, Superintendent, Cleansing Dept., Dock-st.

Penarth.—Road Materials.—For U.D.C. B. I. Evans, S.

Prescot.—Highway Materials.—For U.D.C. F. A. Gregson, E. and S.

Rothwell.—Sanitary Stores.—For U.D.C.—C. A. E. Snell, S.

Tadcaster. — Highway Materials. — For R.D.C. H. W. Boardman, E. and S.

MARCH 1.

Bebington and Bromborough.—Road Materials.—For U.D.C. P. Parr, E. and S.

Birkenhead.—Highway Materials.—For Corporation. Water Engineer, 601, Borough-rd.
Bredbury and Romiley.—Road Materials.—For U.D.C. S.
Cairo.—Asphalt.—3,750 tons of asphalt, for Egyptian Ministry of Public Works. Dept. of Overseas Trade, 35, Old Queen-st, S.W.1. (Ref. No. B.X. 7244.)
Friern Barnet.—Granite Chippings, etc.—For U.D.C.—J. Montague Gameson, E. and S.
Paignton.—Highway Materials.—For U.D.C. E. & S., 23, Totnes-rd.
Seaford.—Road Materials.—For U.D.C. E. A. Lister, S.
Thornton Cleveleys.—Road Materials.—For U.D.C. H. Fenton, S.
Wrexham.—Cement, etc.—For T.C. J. England, B.E.

MARCH 2.

Brighouse.—Granite Chippings.—For T.C. B.E.
Cheadle and Gatley.—Paving Materials.—For U.D.C. J. Wrest, E. and S.
Denbighshire.—Road Materials.—For C.C. E. A. Evans, C.S., 46, Clwyd-st., Ruthin.
Hoo.—Highway Materials.—For R.D.C. W. J. Stimpson, S.
Surrey.—Limestone, etc.—For C.C. Ernest W. Veale, County Divisional Surveyor, South-st., Farnham.
Wembley.—Road Materials.—For U.D.C. C. R. W. Chapman, E. and S.
Weston-super-Mare.—Cement, etc.—For U.D.C. H. A. Brown, E. and S. Dep. £1 1s.

MARCH 3.

Bromley.—Tarred Slag.—For R.D.C. T. Watson, E. and S.
East Ham.—Building Materials.—For Corporation. C. E. Wilson, T.C.
Exeter.—Building Materials.—For T.C. R. H. Dymond, City E. and S.
Peterborough.—Cement, etc.—For T.C. W. H. A. Court, City E. and S.
Sevenoak.—Road Materials.—For U.D.C. S.

MARCH 4.

Morley.—Highway Materials.—For T.C. F. Turner, B.E.
Nelson.—Road Materials.—For T.C. F. V. Alexander, B.E. and S.
Tipton.—Highways Materials.—For U.D.C. K. W. Madin, clerk.

MARCH 5.

Barnet.—Highway Materials.—For U.D.C. E. and S.
Berkshire.—Painting Materials.—For C.C. H. J. C. Neobard, clerk.
Carlisle.—Highway Materials.—For T.C. Percy Dalton, City E. and S., 18, Fisher-st.
Edinburgh.—Building Materials, etc.—For T.C. T.C.
Gt. Yarmouth.—Plumbing Materials.—For C.B. S. P. Thompson, B.E.
Littleborough.—Road Materials.—For U.D.C. G. F. Wild, S.
Manchester.—Lime, etc.—For T.C. J. H. Sillitoe, commercial manager and secretary, Gas Dept.
Marple.—Highway Materials.—For U.D.C. D. J. Diver, S.
Rochdale.—Highway Materials.—For C.B. B.S.
Rutland.—Highway Materials.—For C.C. R. C. Dalton, clerk, 7, Catmose-st., Oakham.
Solihull.—Road Materials.—For R.D.C. R. Dunn, Acting Surveyor.
Southampton.—Stoneware Pipes, etc.—For C.C W. J. Taylor, C.S., Winchester.

MARCH 7.

Carmarthenshire.—Road Materials.—For C.C. T. W. Wishlade, C.S., The Castle, Carmarthen.
Dover.—Cement.—For Dover Harbour Board. R. Mowll, Registrar of Dover Harbour Board, Castle-st.
Halifax.—Cement, etc.—For Gas Committee. W. B. McLusky, engineer and manager, Gas Department.
Heston and Isleworth.—Road Materials.—For U.D.C. J. G. Carey, E. and S.
Huyton-with-Roby.—Road Materials.—For U.D.C. A. W. Thomas, E. and S.
Rugby.—Stone, etc.—For U.D.C. W. H. Spicer, E. and S.
Rugby.—Tar.—For U.D.C. W. H. Spicer, E. and S.
Sunbury-on-Thames.—Road Materials.—For U.D.C. Harold F. Coales, E. and S.
Thorne.—Limestone.—For R.D.C. H. Plewes, S.

MARCH 8.

Kidderminster.—Highway Materials.—For T.C. J. Hawcroft, B.E. and S., 110, Mill-st.
Rochdale.—Sand, etc.—For C.B. Wm. Hy. Hickson, T.C.

MARCH 9.

Darlington.—Highway Materials.—For C.B. B.S.
Macclesfield.—Paints, etc.—For Cheshire County Mental Hospital, W. G. F. Tingay, clerk.
Salford.—Lime.—For T.C. City E.
Surrey.—Highway Materials.—For C.C. H. Beeney, County Divisional Surveyor, County Divisional Surveyor's Office, West Byfleet.

MARCH 10.

Dunstable.—Highway Materials.—For T.C. Wm. F. Wilkins, B.S.
Minehead.—Granite, etc.—For U.D.C. A. D. Barron, E. and S.

MARCH 11.

Malling.—Road Materials.—For R.D.C. J. W. Pell, Acting Highway S.

MARCH 12.

Burnley.—Highway Materials.—For C.B. B.E. and S.
Cleethorpes.—Road Materials.—For U.D.C. L. W. Pye, E. and S.
Staffordshire.—Road Materials.—For C.C. Robert S. Murt, C.S., Lloyds Bank-chambers, Stafford.

MARCH 14.

Faversham.—Highway Materials.—For R.D.C. J. G. Chittenden, S.
Horwich.—Road Materials.—For U.D.C. T. Green.

MARCH 17.

Gravesend.—Granite, etc.—For T.C. F. T. Grant, B.E. and S., Cy.E., M.R.S.I., 5, Woodville-terrace, Gravesend.

APRIL 2.

Cairo.—Paints, etc.—For Director of Stores, Department of Public Health, Cairo. Department of Public Health, Cairo.

ENGINEERING, IRON AND STEEL.

MARCH 2.

Glamorgan.—Bridge.—Reconstruction of Rhyd-y-Cyff bridge at Pontrhydycyff, near Maesteg, and construction of bridge, over River Cathan, Garnswilt, fod C.C. E. Chas. Pole, Acting County Surveyor, Glamorgan County Hall, Cardiff.
Market Bosworth.—Drainage.—Laying of about 1,000 yd. of stoneware pipe sewer, 6 in. to 12 in. dia., and construction of sewage outfall works, in parish of Markfield, for R.D.C. Pick, Everard, Keay and Gimson, engineers, 6, Millstone-lane, Leicester. Dep. £2 2s.
Market Bosworth.—Drainage.—Laying of 500 yds. of stoneware pipe sewers, 9-in. and 12-in. dia., and construction of sewage outfall works, in parish of Stanton-under-Bardon, for R.D.C. Pick, Everard, Keay and Gimson, engineers, 6, Millstone-lane, Leicester. Dep £2 2s.

MARCH 5.

East Grinstead.—Tanks.—Construction at Eden Vale sewage disposal works, East Grinstead, of percolating filter, storm water tanks, sludge filters, and alterations to existing sedimentation tanks, together with pipe lines, manholes and contingent materials and works, for U.D.C. E. and S. Dep. £2 2s.
Llangeinor.—Station.—Pumping station at Llangeinor, for Mid-Glamorgan Water Board. Thomas & Morgan & Partners, civil engineers, Pontypridd. Dep. £5 5s.
Wigtownshire.—Pipes.—Work in connection with laying of 2 in. and 1¼ in. c.i. pipes and building storage tanks, necessary for the introduction of water supply to small holding scheme at South Balfern, Kirkinner, Wigtownshire, for Department of Agriculture for Scotland. Chief Engineer and Surveyor, Department of Agriculture for Scotland, York-bldgs., Queen-st., Edinburgh.
Woking.—Alterations.—To sewage pumping stations at (a) sewage works, Old Woking; (b) South-rd., Horsell, for U.D.C. G. Gould Marsland, E. and S. Dep. £3 3s.

MARCH 6.

Portsmouth.—Hangar.—Steel-framed service hangar at Portsmouth Municipal Aerodrome, for T.C. R. J. Jenkins, City E. Dep. £2 2s.

MARCH 7.

Glamorgan.—Sewage.—Sewerage and sewage disposal works and cast-iron mains at Hensol Castle, for C.C. Thomas & Morgan & Partners, engineers, 23, Gelliwastad-rd., Pontypridd. Dep. £5 5s.
London.—Rebuilding.—Also strengthening of granite parapet of river wall in front of Grosvenor-rd. and Pimlico-gdns., rebuilding at higher level of granite coping and railings in front of Grosvenor-rd., and consequent alterations to footway paving in Grosvenor-rd. and Pimlico-gdns., for L.C.C. Chief E., Old County Hall, Spring-gdns., S.W.1. Dep. £2.
Solihull.—Sewage.—Sewers, pump house and rising main, for R.D.C. R. Dunn, Acting Surveyor. Dep. £1 1s.
Staffordshire.—Widening of Ireland County bridge, Clarkes-lane, Willenhall, for C.C. R. S. Murt, C.S., Lloyd's Bank-chambers, Stafford. Dep. £2 2s.
Stoke-on-Trent.—Sewage.—For Strongford sewage scheme, for T.C. Sewage Engineer, Leek-rd. Dep. £3 3s.

MARCH 8.

Sandown.—Waterworks.—Mass concrete sedimentation tank at waterworks pumping station, for U.D.C. S. Dep. £2 2s.

MARCH 9.

Birmingham.—Sewerage.—Construction of Birmingham Meriden and Solihull joint sewerage section. (2) contract 2 (syphon and aqueduct at Cole End), for T.C. H. Humphries, City E. and S. Dep. £2.
Swindon.—Reservoir.—Reinforced concrete reservoir, for T.C. Dr. H. Lapworth, 25, Victoria-st., S.W.1. Dep. £5.

MARCH 11.

Coleraine.—Shed.—Harbour shed at Coleraine Harbour, for Coleraine Harbour Commissioners. Henderson & Nicol, chartered civil engineers, 21, Bridge-st., Aberdeen. Dep. £1 1s.

MARCH 12.

Highworth.—Water Supply.—Installation of water supply for parish of Wroughton from their Well at Gadbourne Bridge, for R.D.C. Parker Pearson & Ross Hooper, engineers, Dallas-chambers, Chippenham. Dep. £2.

MARCH 15.

Glossop.—House.—Separating weirs and mechanical filter-house, with all contingent works, for Corporation. G. Faulds, B.S. and E. Dep. £2 2s.

MARCH 18.

Scunthorpe and Frodingham.—Bridge.—New bridge over L. and N.E. railway at Scunthorpe, for U.D.C. W. Farrar, E. and S. Dep. £5.

MARCH 21.

Middlesex.—Sewerage.—For West Middlesex main sewerage scheme for C.C. Dodd & Watson, engineers, Wellington House, Bennetts-hill, Birmingham. Dep. £5 5s.

ROAD, SEWERAGE, AND WATER WORKS.

FEBRUARY 29.

Fife.—Pipes.—Laying and jointing of about 940 lin. yds of 4 in. dia. water pipes in Station-rd., Thornton, for C.C. H. F. Hodge, C.E., 34, Viewfield-terr. Dep. £1 1s.
Havant.—Sewer.—210 lin. yds. of 8 in. and 6 in. dia., iron and stoneware soil sewer, with manholes, etc., at Staunton-rd. housing site, for U.D.C. C. E. Maynard, S. Dep. £1.
Heckmondwike.—Drainage.—425 yd. of 12-in. glazed socketed stoneware pipes and manholes, in Leeds Old-rd., for U.D.C. F. W. Littlewood, S.
Thorne.—Sewerage.—One mile of 9 in. and 12 in. cast iron and stoneware pipe sewers, with concrete manholes, also for laying of a 15 in. cast iron pipe sewer, across Stainforth and Keadby Canal, for R.D.C. W. H. Radford & Son, civil engineers, Albion-chamb., King-st., Nottingham. Dep. £3 3s.
Wantage.—Making-up.—Of road on West Hill housing site, for U.D.C. S.

MARCH 1.

Bedford.—Roads and Sewers.—London-rd. housing estate. Borough Engineer, Newnham House, Horne-lane. Dep. £5.
Hemsworth.—Sewer.—200 yds. lin. of 9-in. stoneware main sewer with manholes and appurtenant works at Leigh-st., Ackworth, near Pontefract, for R.D.C. W. T. Lynam, Market-chams., Hemsworth, near Pontefract. Dep. £1.
Leamington Spa.—Tarspraying.—Approximately 193,000 super. yds. of roads, for T.C. J. Sutcliffe, B.E.
Wadebridge.—Mains.—600 yd. of 4-in. and about 785 yd. of 3 in. "spun" iron water mains and appurtenant works.—For U.D.C. A. E. Bewes, S. Dep. £1 1s.

MARCH 2.

Acton.—Improvements.—Acton-lane, near Chiswick Park Station (M.D.R.), for T.C. W. G. Cross, B.E. Dep. £2 2s.
Mansfield.—Making-up.—Of Laurel-av. and Cedar-st., for T.C. W. Thompson, B.E. and S. Dep. £1 1s.
Newcastle-upon-Tyne.—Roads.—Roads, footpaths and sewers on sections "E," "F" and "G" of St. Anthony's housing estate, for T.C. Housing Architect, 18, Cloth-market. Dep. £2 2s.
Stockton-on-Tees.—Resewering.—Of Lustrum Beck area, for T.C. J. P. Wakeford, B.E. Dep. £5.

MARCH 3.

Glasgow.—Roads.—Roads and sewers at Carntyne South, for T.C. Director of Housing, 20, Trongate, C.1.

MARCH 5.

Aldeburgh.—Main.—4 in. C.I. water main, 3,033 ft. in extent, along Leiston-rd., for T.C. J. C. Gordon, B.S.
Rowley Regis.—Sewer.—47 yd. of sewer along Birmingham-Wolverhampton-rd. at Tividale, near to Hill-rd., including one flushing-shaft, for U.D.C. D. Wright, clerk.
Wimbledon.—Making-up.—The Quadrant, for T.C. B.E. Dep. £2 2s.

MARCH 7.

Beckenham.—Widening, etc.—Of Croydon-rd., between Beckenham-rd. and Westfield-rd., for U.D.C. H. S. Best, S., 36, High-st. Dep. £2.
Portsmouth.—Paving.—Laying asphalt macadam paving on concrete foundations constructed by Corporation in Northern-parade extension, for T.C. City E. Dep. £2 2s.
Romford.—Making-up.—Of Weald-way and Fernden-way, for U.D.C. F. G. Beaumont, E. and S. Dep. £1 1s.
Slough.—Improvements.—To Bath-rd. from No. 18 to Police Station, for U.D.C. A. Bromly, E.

MARCH 8.

London.—Paving.—Of Cliffview-rd., Lewisham, for Lewisham B.C. John W. Shuter, T.C.
Sutton and Cheam.—Making-up.—Wrayfield-rd. (tarmacadam); Hilbert-rd. (part tarmacadam and part concrete); Hayes-cres. (part tarmacadam and part concrete); Lloyd-rd. (tarmacadam); Morningside-rd. (tarmacadam); Priory-av. (concrete); Tudor-close, Section 1 (concrete), for U.D.C. Wm. Hedley Grieves, S. Dep. £1 1s. each road.
Sunderland.—Roads.—Construction of roads and sewers at Newcastle-rd. housing estate, for C.B. B.E. Dep. £2 2s.

MARCH 9.

Heston and Isleworth.—Sewer.—Resurfacing of Martindale-rd. and provision of surface water sewers, for U.D.C. J. G. Carey, E. and S. Dep. £2 2s.

MARCH 14.

Hereford.—Tarpainting.—250,000 superficial yds., approximately, for T.C. City E.
Motherwell and Wishaw.—Improvements.—Lifting tramway track, including whinstone and granite setts, steel rails, points and crossings, tie bars and copper bonds, etc., and laying of concrete foundations and laying bituminous macadam surfacings, for T.C. B.E.

MARCH 16.

Hendon.—Improvement.—And reconstruction of Eastcote-rd. (section 3) in parish of Pinner, for R.D.C. H. W. Rackham, S. Dep. £3 3s.
Turton.—Sewering.—At Hard Mill-rd., Harwood, for U.D.C. Vincent W. Laithwaite, S.

Public Appointment

MARCH 1.

Horsham.—Housing Assistant (Temporary) required by the U.D.C. Clerk, Council Offices, Horsham-pk.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council R.D.C. for Rural District Council; E.C. for Education Committee; B C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

Aberdeen.—Plans prepared for following schemes:—alterations at 73 to 77, Union-st., G. Watt, architect, Union-st.; alterations and additions, 42, Catherine-st., D. & J. R. McMillan, architects, 105, Crown-st.; reconstruction and extension to garage, Albury-rd., Jenkins & Warr, architects, 16, Bridge-st.

Alnwick.—Licensing Justices approved alterations to "Radcliffe Arms Hotel."

Ambergate.—Committee of Ambergate and District Association (Secretary, C. H. Bird) propose village hall.

Annfield Plain (Durham).—U.D.C. passed plans for 72 houses at West Kyo. Plans by Architect, Council Offices.

Ashgilhead.—Housing scheme by Lanarkshire C.C. P. Smith, architect, Clydesdale-st., Hamilton.

Aylsham.—R.D.C. received M.H. sanction to 18 houses.

Ayr.—Corporation to erect 208 houses at Lochside at £57,000. J. Young, Burgh Architect.

Barnsley.—T.C. negotiating for land at Lundwood for housing.—Application being made to M.H. for building houses on new street forming western area scheme.

Barrow-on-Soar.—R.D.C. approved plans for 12 houses at Spinney Rise, Birstall, for J. Jelley & Sons, Leicester.

Bedford.—R.D.C. approved factory at Harrold for C. Clayson & Sons.

Bedlington.—U.D.C. seeking site for sunray clinic. J. W. Pooley, S.

Bedworth.—U.D.C. to erect 92 houses of three-bedroom type.

Biggar.—Lanarkshire C.C. to proceed with new housing scheme. J. Smith, architect, Clydesdale-st., Hamilton.

Billesdon.—R.D.C. approved: 8 houses, Humberstone, Bert Cole, of Scraptoft.

Birmingham.—Ten acres and Stirchley Co-operative Society, Ltd., Umberslade-rd., Stirchley, propose shops, Castle Quarry, Weoley Castle estate. H. W. Simister, L.R.I.B.A., architect, Norwich Union-chambers, Congreve-st.

Blackburn.—Dinsley & Moss, architects, 17, Union-st., Chorley, preparing plans for church on Hawthorne-st. for Trustees of Primitive Methodist Connexion.

Blackpool.—Tenders invited for Victoria Hospital on site off Stanley-pk. Cost £167,000. Architects, J. S. Gibson & Gordon, FF.R.I.B.A., 5, Old Bond-st., London, W.1.

Blacon (Cheshire).—Bent's Brewery Co., Ltd., 30, Johnson-st., Liverpool, proposing licensed premises at junction of Highfield-rd. and Saughall-rd.

Blaydon-on-Tyne.—U.D.C. received sanction to build 50 houses at Highfield. Sanction also sought to erect additional houses at Bleach Green. Plans by T. Mastaglio, S.

Boldon Colliery (Durham).—R.C. church is proposed. Mrs. E. Fallon, secretary.

Bolton.—William Walker & Sons, Ltd., Rose Hill Tannery, propose extensions to works in Nelson-st. Plans by Bradshaw Gass & Hope, FF.R.I.B.A., 19, Silverwell-st., Bolton.—Extensions to St. Barnabas' Church, Chorley Old-rd., proposed by Parochial Council. Cost £7,000. F. Freeman, L.R.I.B.A., architect, 21, Wood-st.

Boston.—Plans submitted by Home Brewery Co., Ltd., for rebuilding of "New Inn," Pen-street, approved by T.C.

Bradfield.—R.D.C. reported that proposals for 12 houses at Pangbourne had been submitted to M.H.

Bradford.—Sykes & Co., Ltd., to erect offices at Willowfield Mills, Legrams-lane. Tenders invited. W. E. Bickers, architect.

Braintree.—R.D.C. considering housing scheme on suitable site.

Bramley.—Hough End Holy Trinity Church authorities raising funds for parochial hall.

Bridge-of-Weir.—Reconstruction and extension to Goyffe Castle, also on lodge houses and 2 dwelling-houses on Goyffe Castle estate, for Major H. Coats, D.L., Fergusliе-pk., Paisley. Cook & Hamilton, architects, Gilmour-st., Cross, Paisley.

Bridgnorth.—Crown & Raven Hotels, Ltd., alterations, "Crown Hotel."

Bridlington.—Work on site of Bridlington's new Royal Hall is proceeding rapidly and Borough Architect, P. M. Newton, has been instructed to proceed with plans for new hall.

Bromley.—T.C. approved: 8 houses, Falcon-av., P. A. Coad; alterations, Bickley Hotel, S. W. Davis.

Bury.—Crown Brewery Co., propose licensed premises at Park Hills.—Bury Brewery Co. propose licensed premises in Market-st. and Park Hills-rd.

Caldercraig.—Lanarkshire C.C. have housing scheme for district. P. Smith, architect, Clydesdale-st., Hamilton.

Cambuslang.—Scheme costing £18,000 for reconstruction and extension, West Coats School. John Stewart, architect, Albert-st., Motherwell.

Cannock.—U.D.C. to invite tenders for 102 houses on Pye Green site.—Plans passed: pithead baths, Cannock Wood, for Miners' Welfare Committee.

Carlisle.—City Council sanctioned another 166 houses at £59,312.—Houses will be built on Botcherby, Currock and Raffles-Newtown estates.

Carlisle.—R.D.C. approved: Benwell & Slack, architects, Carlisle, behalf of W. Maxwell, King's Arms-lane, additions to Aglionby Farm House.

Carlton-in-Coverdale (Yorkshire).—Local Memorial Institute Committee to erect institute.

Castleford.—U.D.C. to erect houses and shops on Whitwood Mere housing estate. J. Lamb & Co., Ltd., propose extensions to Fan House.

Chapelhall.—Reconstruction and extension of Chapelhall public school. J. Stewart, architect, Albert-st., Motherwell.

Chatham.—T.C. approved: 28 houses at Monrose-av., A. E. Clifford & Son.

Chepping Wycombe.—Plans approved for covered stand at Loakes-pk. football ground.—Tenders to be invited by T.C. for repairs to 1, Cornmarket.—Plans passed: alterations, High-st., Davenport, Vernon & Co., Ltd.; factory, West End-st., Bates & Son; 14 houses, Micklefield-rd., High Wycombe and District Housing Society, Ltd.

Chester.—T.C. to apply to M.H. for sanction to roads and sewers on remaining portion of Lache estate.—Tenders to be obtained for new gateway at Newgate. Plans by Walter Tapper, A.R.A.—Improvements to be carried out at isolation hospital.—Plans passed: alterations, 64 & 66, Boughton, R. Walker; alterations, "Albion Hotel," City-rd., Worthington & Co., Ltd.; rebuilding, "Brewers' Arms," Liverpool-rd., Upton, Threlfall's Brewery Co., Ltd.; hotel, Blacon, for Bent's Brewery Co., Ltd.; 18 houses at Well-lane, Upton, R.D.C.; lay-out plan of 61 houses at Whitchurch-rd., J. Law and Others.—City Surveyor been instructed to invite tenders for painting of houses upon Hoole-lane estate.

Chesterfield.—Parochial Council of St. Augustine's (Vicar, Rev. C. Mudford) propose mission church on Boythorpe estate.

Chorley.—Miners' Welfare Committee propose baths at Chisnall Hall Colliery, Coppull. J. H. Forshaw, A.R.I.B.A., Mines Section, Dean Stanley-st., Westminster, S.W.1.

Coalville.—Plans of proposed new primary council school in Bridge-rd. been approved by Leicestershire E.C.

Cork.—Scheme of improvements and modernisation at £20,000 to be carried out at Cork Maternity Hospital.

Coventry.—Public Health Committee recommend application to M.H. for sanction to £123,500 for building new infectious diseases hospital.—Joint Gas and Electricity Committee approved gas and electricity showrooms on adjacent sites at Corporation-st., at £27,618.

Croydon.—C.B. received Electricity Commissioners' sanction to £445 for building.—M.H. inquiry been held in connection with compulsory order for Old Town Clearance area.—Sub-station to be built at Waddon housing estate.—Repairs to be carried out at South Norwood destructor at £200.—Plans passed: T. Markwick & Co., Wickham-rd., 14 houses and 11 garages Oak-av., and 32 houses and garages, Beech-rd.; G. Whittaker, 13, Queen Annes-gate, S.W.1, additions, 16, North End; Eiloart, Son & Inman, 40, Chancery-lane, W.C.2, alterations, 53-59, High-st.; P. Richardson, 7, Royal-parade, Wickham-rd., 40 houses, Ridgemount-av.; C. H. Ridge, Katharine-st., rebuilding golf club house, Featherbed-lane, Addington; Warner & Watson, Ltd., Elm-rd., New Maldon, 5 houses and amended lay-out plan, Kynaston estate, Thornton Heath; F. Fowles, 65, Sunny-bank, S.E.25, 18 houses, Davidson-rd.; Maides Bros., Albert-rd., 8 flats, next 247, Albert-rd., 8 flats, next 270, Albert-rd.; G. W. Peachey, 7-8, Norfolk-st., W.C.2; garage and alterations and additions, 59, Croham Valley-rd.; E. Bates, 27, Queen Victoria-st., E.C.4, alterations and additions, 15, Croham Valley-rd.; E. Bates, 27, Queen Victoria-st., E.C.4, garage, 34, Park Hill-rd.; P. Richardson, Wickham-rd., 5 houses, Lodge-rd.; MacFisheries, Ltd., 34, New Bridge-st., E.C.4, alterations and additions, 17, London-rd.; Wates & Wates, 668, High-rd., S.W.16, 12 houses and 1 garage, Stanford-rd.; Borough Electrical Engineer, 36, High-st., sub-station, Kingsdown-av.

Darlington.—Temporary mission hall to be built in Salutation-rd. in connection with Holy Trinity Church.

Darrington (W. Yorks).—Pontefract R.D.C. to acquire site at Marlpit-lane upon which to erect 16 houses.

Derby.—Borough Architect instructed to produce plans of proposed police buildings.

Doncaster.—R.D.C. instructed S. to prepare plans, specifications, and estimates of cost of 16 houses at Edlington for aged people.

Dorchester.—T.C. approved: 6 houses, Coburg-rd., Mrs. M. K. Tite.

Dudley.—Salvation Army Authorities propose additions to Assembly Hall in King-st. Plans prepared in Property Dept., Society's headquarters in Queen Victoria-st., London, E.C.4.

Dundee.—Alterations and additions at Strathmartine-rd. Ross & Buchanan, architects, 199, Pitt-st., Glasgow.

Dunston-on-Tyne.—Plans prepared by S. J. Stephenson, 2, Saville-place, Newcastle, for Masonic hall. Tenders not yet been invited.

Durham.—Messrs. J. Nimmo & Sons, brewers, Castle Eden, to erect hotel at Deaf Hill. C. F. Burton, F.R.I.B.A., Shipping Chambers, George-st., West Hartlepool, architect for scheme.

Ealing.—Plans have been prepared for house in Brent Lodge Park, Hanwell, for accommodation of Ealing Parks Superintendent. Tenders are to be invited.—Tenders are to be invited for repairs and decorations to vestry hall.

Earsdon (Northumberland).—U.D.C. secured housing site at Holywell.

Easington (Durham).—It is proposed to carry out alterations at Poor Law Institution at £1,632 and at childrens' home at £357. W. J. Merrett, C.S., Shire Hall, Durham.

East Barnet.—U.D.C. received plans of new elementary school at Cat Hill by Hertfordshire C.C.—Plans approved:—extension of pavilion of Lyonsdown Lawn Tennis Club, Gloucester-rd.

Eastfield.—Lanarkshire C.C. to proceed with extension of primary school. J. Stewart, architect, Albert-st., Motherwell.

Edgware.—Middlesex C.C. received M.H. sanction to borrow £2,500 to adopt and equip for institutional purposes building at Edgware formerly used as Children's Home.

Edinburgh.—New £30,000 school for Shaughton district by Corporation. E. J. MacRae, Education Architect.

Edlington.—Doncaster R.D.C. propose 16 houses.

Edmonton.—U.D.C. to spend £360 on improvements to lavatory accommodation at Knights-lane baths.—£100 for fencing at cemetery.—£164 to be spent at bowls pavilion.—£600 for painting, etc., at Pymmes-pk.—Housing Committee recommended amended lay-out for Churchfields estate, submitted by E., be approved and forwarded to M.H.—Swannell & Sly prepared plans for lay-out of 100 houses on new road to be known as Middleham-rd. on west side of Dysons-rd.—Plans passed: Swannell & Sly, 9 detached houses in Munstergdns.; J. Parker, store building at Parr Manufacturing Co.'s premises, Abbey-rd.; E. Boxell, houses and variation of lay-out in Latymer, St. Ann's and St. Joan's-rds.; Bruce Building Co., amended lay-out showing 51 houses in Ulster-gdns.

Ellie.—Eight houses at Woodside-pl. J. P. Burn, Burgh Architect.

Epsom.—R.D.C. to build 12 further houses at Stoke D'Abernon.

Falkirk.—Council housing scheme of 32 houses. William Gibson, architect, Muncipal Offices.

Farnworth.—Thomas E. Smith & Son, architects, Central-chams., Pole-st., Bolton, architects for alterations to "Moses Gate Hotel."

Felling.—Council obtaining land at Felling for slum clearance.—15 houses to be built at Pelaw for Council.

Fitzwilliam.—Public shelter and conveniences to be erected by R.D.C.

Fylde.—R.D.C. approved: R. Bowman, 6 houses, Lytham-rd., Warton; T. Edsforth, 60 houses, 4 houses and shops, off Staining-rd., Hardhorn; W. Hornby, 2 houses and shops, Preston Old-rd., Marton; Blackpool Co-operative Society, Ltd., stores, Preston Old-rd., Marton.

Gillingham (Kent).—Dinsley & Moss, architects, 17, Union-st., Chorley, preparing plans for church on Twydall estate for Primitive Methodist Association.

Glassford.—Schoolhouse at Glassford primary school. J. Stewart, architect, Albert-st., Motherwell.

Glasgow.—Reconstruction scheme at George-sq., for Underwood Typewriting Co., Ltd., J. Folley Eggerton, architect, Estate Offices, Union-st., Birmingham.—Plans in hand for new offices and other buildings at Temple Saw Mills, Jno. Laird & Son, architects, 11, Bothwell-st.

Gobowen.—Additions proposed to Derwen Cripples' Training College. A. E. Williams, architect, Kenneth-chambs., Dogpole, Shrewsbury.

Gravesend.—T.C. approved:—C. A. Reid, 8 houses at Hillside-av.

Great Preston.—H. B. Clark & Co. (Successors), Ltd., brewers, Wakefield, to erect hotel at south side of Berry-lane at £2,000. Plans by J. P. Firth, architect, Wakefield.

Handbridge.—Parochial Council of St. Mary's-without-the-Walls propose parish hall.

Harpurhey.—Kay's Atlas Brewery Co., Ltd., Unicorn Brewery, Stockport, propose alterations and additions to "Milan Inn," Rochdale-rd. and Queen's-rd.

Hastings.—T.C. approved: alterations, "Lord Nelson" public-house, East Bourne-st., Hastings, Star Brewery Co., Eastbourne, owners, A. Ford, architect; 6 houses, Bexhill-rd., St. Leonards, A. Honnor, owner, Jeffrey & Bowcock, architects; Aylward Bros., 5 houses (4 in Clive-av., 1 in Berlin-rd.); alterations, 26-28, London-road, St. Leonards, A. Goldman, owner, Harold Burleigh, architect; 2 pairs houses, St. Helen's-rd., E. Taylor, owner, H. W. Coussens, architect.

Heddesdon.—Bi-centenary effort to renovate and redecorate Parish Church and to thoroughly overhaul Church Institute now taken concrete form. Plans been drawn and estimate for work is £1,200.

Holloway (Derbys).—Building Committee propose village hall (Hon. Secretary, E. Berks).

Hook Norton.—Rev. Wall, B.D., of St. John, Banbury, proposes church.

Huddersfield.—Lay-out plans for 114 small houses for aged people have been approved by Housing Committee, of T.C.

Hull.—Gordon Armstrong (Hull), Ltd., motor agents, 7, Bourne-st., proposing showrooms and garage in Anlaby-rd.

Huntington.—T.C. approved: store building by Chivers & Sons, Ltd., in George-st.

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* See also List of Contracts, Competitions, etc.

Hythe.—Lacey & Jackson been appointed architects for T.C.'s housing scheme.

Juniper Green.—Alterations and additions and new garage at Baberton-av. Hunter, Crawford & Williamson, architects, 2, Hill-st., Edinburgh.

Kent.—C.C. approved following:—remodelling of laundry at Midway Public Assistance Institution; new casual wards at Dover Public Assistance Institute providing accommodation for 64 men at £2,900; casual wards to provide accommodation for 46 men at Hothfield Institution at £2,655; improvements at Leybourne Grange Colony for Mental Defectives amounting to £580; loans sanctioned—elementary education, £7,600 for sites and equipment; library, £1,000 for the purchase and adaptation of building for Deal Library; mental deficiency, £4,000, for additional land adjoining Leybourne Grange.

King's Lynn.—B.S. submitted plan showing layout of sites for 231 houses on land comprising about 18½ acres belonging to Corporation and situate between Saddlebow-rd. and Wisbech-rd.—T.C. resolved to build 41 houses fronting Saddlebow-rd. and Wisbech-rd.

Lancashire.—P.A.C. propose provision of additional accommodation at casual wards at Ormskirk Institution at £600.

Langholm (Cumberland).—T.C. to consider details for housing scheme.

Leeds.—Tenders being invited for offices at Albion-st. for trustees of late J. Pickersgill. Plans by Bramham & Gale, architects, East-parade.

Lerwick.—Corporation to erect new housing scheme of nearly 100 houses. W. W. Reid, architect, Municipal-buildings.

Lindsey.—C.C. propose extensions of casual wards at Market Rasen, at £4,500.

Lindsey.—E.C. propose extensions and alterations, Toynton All Saint's school and school house at £1,000.

Liverpool.—Catholic Authorities of St. Elizabeth Central school, Breckfield-rd., propose modernisation and extension of buildings.

London (Battersea).—B.C. to build sub-station on St. John's College estate.—B.C. received L.C.C. sanction to borrowing £35,703 for erection of second block of dwellings on St. John's College estate.—Elgood & Hastie, to erect addition in front of 84, Clapham Common West Side.

London (Bermondsey).—B.C. recommend £16,750 for 25 flats and 5 shops and store sheds, etc., at Silver-st.—Council received L.C.C. sanctions to following loans:—£13,560, 22 flats at Acorn-walk extension; £14,900, 28 flats at Grange-walk; £15,600, 26 flats—block 5, Rotherhithe-st. (West); £9,300, 16 flats—block 4, Gilham's-court area; £12,075, 21 flats—Silver-st. area; £1,220, 2 cottages—Nos. 83 and 87, The Grange, and £28,230, 49 flats—Fort-rd. and Balaclava-rd.

London (Downham).—L.C.C. recommend £3,085 in respect of appropriation of site at Downham and erection thereon and maintenance of temporary fire station.

London (Hackney).—L.C.C. sanctioned £37,130 for housing at Lower Clapton-rd., for B.C.

London (Hampstead).—L.C.C. sanctioned garage building at 14, Lindfield-gdns., for Dr. Hunter, per Cooke & Harrison.

London (St. Pancras).—Application to be made by B.C. to L.C.C. for borrowing of £3,600 for purchase of 90-110, Leighton-rd.

London (Stepney).—B.C. recommend £5,549 for acquisition of 1-3, Church-row, and provision of housing accommodation thereat.—Council also acquired Nos. 71, 73, 75, 77 and 81, Bigg-st. for housing purposes.

London (Wandsworth).—B.C. received L.C.C. sanction to loan for 50 flats in Garratt-lane, adjoining Rogers-rd.—Conveniences are to be erected at Putney Lower Common.—Plans passed: Sampson Hutchcroft, wireless factory, rear 75, Upper Richmond-rd., Putney, abutting upon private way; Miss C. Clare Nauheim, building for Masson Scott, Riverside-rd., Springfield; Hal Williams & Co., petrol filling station, corner Larkhill-lane and Union-rd., Clapham North.

Lydney.—R.D.C. adopted recommendation of Housing Committee to build 24 houses in Oxford-st.

Macclesfield.—R.D.C. proposing 40 houses adjacent to Poynton L.M.S. Railway station. Plans by J. H. Waters, E. and S.

Malling.—R.D.C. approved: Canning factory at Barming-lane, Aylesford, A. Wolton; 23 cottages, May-st., Snodland, C. Townsend, Hook & Co., Ltd.

Manchester.—E.C. to erect electricity sub-station in Carnarvon-st. and Richard-st., Harpurhey. H. C. Lamb, engineer.—H. Hankinson, architect, 2, Ashley-rd., Altrincham, prepared plans for 9 houses, 7 shops and houses on Wilbraham-rd. and Yew Tree-rd., Rusholme.

Manchester.—Plans approved:—alterations to premises, No. 54, Wellington-rd. and Cross-st., Gorton, for Taylor's (Cash Chemists); 6 houses, Barnage-lane, Burnage, for Commercial Estates, Ltd.; alterations to "Wheat Sheaf Hotel," 272, Oldham-rd., for Cornbrook Brewery Co., Ltd.; 10 houses, Guilford-rd. and Norley-drive, Levenshulme, for Lord's Estates, Ltd., Walshaw-st., Oldham; paper store to works, Waterloo-rd. and Allison-st., Cheetham, for Electric Printing Co.; 6 houses, Farrer-rd., Rusholme, for F. Annable & Sons, 73, Hyde-rd., West Gorton; additions to factory, Greek-st. and Bedford-st., Chorlton, for Pownall & Hampson, Ltd.; alterations to premises, Mary-st., Cheetham, for J. Woolley, Sons & Co., Ltd.; shop and house and 6 houses, Hamilton-rd. and Stamford-rd., Rusholme, for J.B. Mycock; 4 shops and houses, 2 lock-up shops and flat, Mauldeth-rd. West and Yew Tree-rd., Withington, for A. Hartley & Sons, 22, Bridge-st.; 110 flats, Fog-lane, and 98 garages, Didsbury, for J. Cockshutt, 12, Bickerton-rd., Birkdale; sports pavilion, Darley-av., West Didsbury, for Manchester and Salford Playing Fields Society.

Marley Hill (Durham).—S. J. Stephenson, 2, Saville-place, Newcastle-on-Tyne, prepared plans for miners' welfare institute.

Middlesbrough.—T.C. approved:—8 terrace houses, Newstead-rd., corner of Byelands-st., Gilbert Long, Ltd.; alterations to shop premises, 207, Linthorpe-rd., Wm. Timpson, Ltd.; rebuilding of motor lorry garage behind shop premises recently occupied by Brough, 91 and 93, Grange-rd., H. Guy Moore; 4 pairs of semi-detached houses, Grosvenor-rd., and 1 pair of semi-detached houses, Henley-rd., Thornfield-rd. and Ackiam-rd., T. P. Price; 11 houses, St. Barnabas-rd., A. Cubitt.

Middleton.—T.C. approved recommendations of E.C. for reservation of site at Alkrington for future new school, and for preparation of plans for new school at Boarshaw.

Newark-on-Trent.—E.C. propose to erect a store room at Queen's-rd. depot, at £1,200. A. J. Waring, electrical engineer.

Newbiggin (Northumberland).—Central premises of Co-operative Society, destroyed recently by fire, to be rebuilt, and offices of U.D.C., which were also destroyed in fire, are expected to be included in scheme at additional cost of about £3,000. C.W.S. Architect's Dept., 90, Westmorland-rd., Newcastle, architects.

Newcastle-on-Tyne.—Sanction to borrow £18,321 for extensions to City Hospital; £2,000 for purchase of Lower Condercum House for school for mental defective children; £2,333 for purchase of land at Benwell; and £2,867 for purchase of land for elementary education purposes, been received by T.C. F. J. Holford, City Architect.—Funds still required for new Dame Allan schools. Cackett, Burns, Dick & MacKellar, Ellison-place, prepared plans.—It is expected that scheme to erect Presbyterian Church at Heaton will be put in hand at early date. A. K. Tasker, architect, Trinity-bldgs., New Bridge-st.—Percy L. Browne & Sons, Pearl-bldgs., prepared plans for film store for Gaumont, Ltd. Contract not let.—T.C. has under consideration slum-clearance scheme affecting East Elswicker. area.—City Council leased land to W. Bell, of Forth-banks, who proposes to erect houses.—Extensions to premises of Alfred Appleby & Co., in Saville-place. Plans by C. S. Errington, 21, Grange-rd. West. Contract not placed.—Stores and offices to be erected for W. Cochran Carr & Co. Cackett, Burns, Dick & MacKellar, 21, Ellison-place, architects.—Site for technical college for City Council been secured.—Newcastle Presbytery secured site at High Heaton for church and A. K. Tasker, Trinity-bldgs., New Bridge-st., been instructed to prepare sketch plans.—Newcastle Electric Supply Co. proposes sub-station at Heywoods-court, Cloth-market. Architects, Merz & McLellan, Carliol House.—Armstrong, Whitworth & Co., Ltd., to erect a service depot in Scotswood-rd.

Newton Abbot.—R.D.C. received M.H. sanction to 6 non-parlour houses at Kingskerswell.

Normanton.—Rev. W. E. Knifton, vicar of Altofts Parish Church, proposes parish hall.

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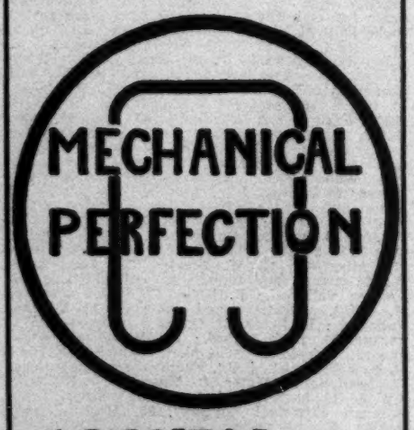

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Nottingham.—Housing Committee are proposing to erect 74 cottages and 20 flats in Red Lion-st. area.

Ossett.—Miners' Welfare Committee propose pit-head baths at Old Roundwood Colliery. J. H. Forshaw, A.R.I.B.A., architect, Mines Section, Dean Stanley-rd., Westminster, S.W.1.

Paisley.—Plans prepared for reconstruction and rebuilding in Moss-st. John Davidson & Son, architects, High-st., Paisley.

Portmadoc.—T.C. propose 25 houses in Avenue-rd.

Preston.—Preston Industrial Co-operative Society, Ltd., Ormskirk-rd., acquired site for branch stores at Harewood-rd. Plans by G. H. Broadbent, architect, 12, Guildhall-st.

Pudsey.—Corporation to build school at Waterloo to accommodate 360 juniors at £8,900.

Richmond (Surrey).—T.C. provisionally approved £35,174 being spent to provide 66 houses.

Rochford.—Church to be erected for the Church of England in Eastwood-Rayleigh rd.

Ryhope (Durham).—Plans not yet been prepared for alterations to miners' welfare institute.

Scarborough.—E.C. to erect sub-stations in Royal Crescent-lane and at Gristhorpe.

Seaton Burn (Northumberland).—Local welfare committee considering plans for pavilion.

Sheffield.—Rev. R. J. Dunford, Sacred Heart, Ripley-st., Hillsborough, proposes permanent building on site of temporary church.

Sherburn.—Tenders invited for rebuilding "White Swan Hotel" for John Smith's Tadcaster Brewery Co., Ltd. Plans by Brewery Architect, High-st., Tadcaster.

Sittingbourne.—U.D.C. asked Housing Committee to take immediate steps to formulate housing scheme.

South Shields.—Truman, Hanbury & Buxton, Ltd., propose to rebuild "City of Durham" licensed premises, Market-pl. Plans by T. A. Page & Son, 67, King-st.

Stockport.—Board of Management of Infirmary proposing extensions to existing buildings. Plans by Thomas Worthington & Sons, FF.R.I.B.A., 178, Oxford-rd., Manchester.

Stockton-on-Tees.—Improvements to be carried out by T.C. at cattle market at £396. J. P. Wakeford, B.E.

Stonehaven.—Kincardine C.C. instructed Macmillan, architects, Aberdeen, to prepare plans, etc., for reconstruction of buildings at Viewmount in Robert-st.

Swansea.—Killay and District Labour Council are proposing to erect hall at Goitre Fawr.—Site at Tir John North been offered by C.B. to Central Electricity Board.—B.E. reported further with regard to proposed transference of stores depot at East Burrows Yard to Pipe House Wharf, and submitted scheme for adapting portion of Pipe House Wharf site at £1,800.—Council approved and tenders to be invited.—Applications to be made to M.H. for laying out recreation ground at Cwmbwrla and levelling recreation ground at Maesteg.—Tenders being invited for cottages for Hospital Committee.—Plans passed: enlargement of scullery, Carmarthen-rd., Fforestfach, W. Evans; alterations and additions, Wind-st., Lloyds Banking Co.

Thornaby-on-Tees.—T.C. approved layout plans for recreation ground at Thornaby Village. Handel Cage, B.E.

Tiverton.—T.C. instructed B.S. to prepare estimate for adapting two houses in St. Andrew-st. as offices.

Upton.—Carter's Knottingley Brewery Co. to build hotel at junction of Wagon-lane and Green-lane. G. F. Pennington, architect, Ropergate, Pontefract.

Uttoxeter.—U.D.C. instructed S to prepare layout for 100 houses on Park-av. site.

Wakefield.—Trustees of Primitive Methodist Church propose church at Outwood. Plans by Dinsley & Moss, architects, 17, Union-st., Chorley.

Wallasey.—Board of Management of Victoria Central Hospital proposes extensions to male wards, at £3,000.

Wallsend-on-Tyne.—T.C. to culvert Willington Dene at £3,000.

Walsall.—L.M.S. Railway Co. to erect shops in Park-st. adjacant to railway station.—Co-operative Society propose reconstruction central premises, Bridge-st.

Washington (Durham).—Sanction to loan of £3,700 for purchase of land at New Washington and Usworth Station-rd. for houses been secured by U.D.C.

Wath-upon-Dearne.—U.D.C. propose erection of 25 houses for aged people.

Weaste.—Catholic Authorities propose church at the junction of Liverpool-st. and Weaste-lane.

West Hartlepool.—T.C. approved: F. Craven, 12 houses, Wynnstay-gdns.; J. C. Moffatt, 9 houses, Cornwall-st.; Christopher Brown & Co., offices, Baltic-st.; R. N. Ripley, 10 garages, Bright-st.; Harland & Parker, 64 houses, Leamington-parade, Alverstone-av., and Stratford-rd.; T. Whitear, 29 houses, Haswell-av.; J. C. Moffatt, 2 houses and shops, and 3 houses Oxford-rd. and Harrow and Jackston-sts.

Weston-super-Mare.—Plans for completion of Grand Central Hotel by carrying it a story higher have been approved by Works Committee.

Wigan.—T. Sumner Smith, F.S.I., Clifton Lodge, Victoria-pk., Manchester, Quantity Surveyor for extensions to grammar schools. Cost £36,000.

Worcester.—Martin & Martin & W. H. Ward, L.R.I.B.A., architects, 106, Colmore-row, Birmingham, to prepare plans for additional wing at Lucy Baldwin Maternity Hospital.

FIRES.

Keighley.—Damage estimated at £20,000 been caused by fire at Goulbourne-st. Mills of Thos. Parker & Sons (Oxenhope), Ltd.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

[PRINCIPAL CHANGES OF THE WEEK.—Sheet Lead, Lead Pipes, Linseed Oil, and Red Lead, and re-arrangement of Rain-Water goods list.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 11 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster	2 13 3	Do. Bullnose	9 15 0
Do., Bullnose	2 5 3	Blue Wire Cuts	7 5 0
White Midhurst Facing Bricks (delivered London site)			5 0 0

Best Stourbridge Fire Brick:—
2½ in. ..... 8 11 0 9 in. 10 3 0

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretcher	21 0 0	D'ble Str'tch'rs	29 10 0
Headers	20 10 0	D'ble Headers	26 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	One Side and two Ends	30 10 0
		Two Sides and one End	31 10 0
		Splays, and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours Hard Glaze £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. " "	2 4	4 in. "	3 6

	s. d.	
Thames Ballast	8 0	per yd
Pit Sand	11 0	" "
Thames Sand	11 0	" "
Best Washed Sand	11 6	" "
¾ in. Shingle for Ferro-Concrete	8 6	" "
¾ in.	11 0	" "
¾ in. Broken Brick	10 6	" "
Pan Breeze	8 0	" "

delivered 2 miles radius Paddington

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test

In Jute Sacks (11 to ton)	£2	4	9	to	£2	6 9
In Free Paper Bags (20 to ton)	2	6	0	to	2	8 0
Alongside Vauxhall in 80 Ton Lots						
Jute Sacks (11 to ton)					1	17 9
Free Paper Bags (20 to ton)					1	19 0
Ferrocrete per ton extra on above					0	7 6
Vitocrete per ton extra on above					0	7 6
Lightning Brand Aluminous Cement in Jute Sacks (20 to ton)	5	2	9	to	5	8 3

NOTE.—Jute Sacks are charged 1s. 6d. each and credited 1s. 6d. each nett if returned in good condition within three months carriage paid.

Super Cement (Waterproof) Paper Bags free	3 16 0
Ciment Fondu (F.O.R. Works)	4 15 0
Roman Cement	6 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaste Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	4 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 10 0
Chalk Lime	2 10 0
Best Ground Blue Lias Lime	1 17 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in sacks 37s. 0d. per ton at rly. dp.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 2 10

BERE STONE—RANDOM BLOCK—
Free on rail at Seaton Station per ft. cube 2 3
Delivered free on rail Nine Elms, S.R. per ft. cube 3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.

PORTLAND STONE—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube 4 4½
Do. do. delivered on road wagons at above stations, per ft. cube 4 5½
White basebed, 3d. per ft. cube extra.
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

CHILMARK—RANDOM BLOCK—
At Nine Elms, per ft. cube 3 11

HOPTON-WOOD STONE—

	s. d.
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides "	23 6
Sawn three or four sides "	27 6

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station, London

6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto	6 0
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in. ditto, ditto "	1 3½

HARD YORK—
Delivered at any Goods Station, London.

	s. d.
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes) "	3 1½
3 in. ditto ditto "	2 6
2 in. self-faced random flags Per yd. super	8 0

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£24 10	3 × 6	£17 0
4 × 9	20 0	3 × 11	19 10
4 × 8	20 0	2 × 11	19 10
4 × 7	18 0	3 × 9	19 10
3 × 8	18 0	2½ × 9	19 10
3 × 7	18 0	3 × 4	17 10
2½ × 7	18 0	3 × 4½	17 10

PLANED BOARDS.

1 × 11	£22 10	1 × 9	£21 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	16/-	1¼	25/-
½	17/-	1½	27/6
⅝	20/-		

TONGUED AND GROOVED FLOORING

Inches	per sq.
1	21/-
1¼	26/-
1½	27/6

Ins.	BATTENS.	s. d
1 × 2	per 100 ft.	2 0

MATCHING (BEST).

Inches.	per sq.
⅜	15/-
½	16/6
1	20/-

	s. d.
SAWN LATHS. Per bundle	2 3

1 INCH AND UP THICK.

Average price for prime quality	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	£4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	30 0 0	18 by 10	16 10 0
22 by 12	26 10 0	18 by 9	14 12 6
22 by 11	24 10 0	16 by 10	14 5 0
20 by 12	24 0 0	16 by 8	11 0 0
20 by 10	20 2 6		

TILES

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000.

	f.o.r. London.
Best machine-made tiles from Broseley or Staffordshire district	£4 10 0
ditto hand-made ditto	5 3 6
Ornament 1 ditto	5 8 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Hip and valley tiles (per dozen) Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£11 0 0
Plain Compound Girders	12 0 0
" Stanchions	15 0 0
In Roof Work	18 0 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ⅞ in.	10 15 0
¾ in.	11 0 0	1 in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars Sizes ¼in. to 6in.	Genuine Wrot. (Puddled) Iron Tubes and Tubulars Sizes ¼in. to 6in.	Standard Fittings Sizes ¼in. to 6in.	Standard Flanges Sizes ¼in. to 6in.
	%	%	%	%
Gas	68	52½	57½	70
Water	61½	48½	52½	65
Steam	57½	45	47½	60
Galv. gas	52½	40	47½	60
Galv. water	47½	35	42½	55
Galv. steam	42½	30	37½	50

C.I. HALF-ROUND GUTTERS—London Prices ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	11d.	1/5	5d.
3½ in.	11½d.	1/7	5d.
4 in.	1/-	1/9	5d.
4½ in.	1/1½	2/-	6d.
5 in.	1/5	2/2	8d.

O.G. GUTTERS.

3 in.	1/1	1/11	5d.
3½ in.	1/2	1/11	5d.
4 in.	1/2½	2/-	5d.
4½ in.	1/4	2/6	6d.
5 in.	1/6½	2/8	8d.

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, angles, stock Branches.	Bends, stock Branches, angles, stock angles.
2 in.	1/3½	1/8	2/7
2½ in.	1/4½	2/-	3/1
3 in.	1/8½	2/6	3/9
3½ in.	2/1½	3/-	4/4
4 in.	2/5	3/7	5/3

Connections—50 per cent. off above prices.
Tonnage allowance—4 ton lots, 5 per cent.
2 ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe, angles, stock angles.	Bends, stock Branches.	Bends, stock Branches, angles, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	1 11	1 6½	1 10½
2½ in. "	2 3½	1 8½	2 4
3 in. "	2 4½	1 10½	2 9½
3½ in. "	2 7	2 4	3 3
4 in. "	2 11	2 7½	3 9

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Pipe, angles, stock angles.	Bends, stock Branches.	Bends, stock Branches, angles, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 9ft. lengths	3 4	4 8	9 3
	cwt. qr. lbs.		
4 in. "	1 1 20	4 7	5 2	8 10
5 in. "	1 2 22	6 0	9 0	14 3
6 in. "	2 0 6	6 8	10 11	16 1

Gaskin for jointing 41/- per cwt.

IRON—	Per ton in London. £ s. d.	£ s. d.
Common bars	10 10 0 to	11 0 0
Staffordshire Crown Bars Good merchant quality	10 15 0 to	11 10 0
Staffordshire Marked Bars	14 0 0 ...	15 0 0
Mild Steel Bars	9 10 0 ...	10 0 0
Steel Bars, Ferro-Concrete quality, basis price	6 0 0 ...	9 0 0
Hoop iron, basis price	11 0 0 ...	12 0 0
" Galvanised	27 0 0 ...	28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g.	11 0 0 ...	11 10 0
" " 24 g.	12 0 0 ...	13 0 0
" " 26 g.	14 0 0 ...	15 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 8 ft. to 20 g.	13 10 0 ...	14 0 0
Ordinary sizes, 6 ft. by 2 ft. to 8 ft. to 22 g. and 24 g.	14 10 0 ...	15 10 0
Ordinary sizes, 6 ft. by 2 ft. to 8 ft. to 26 g.	17 10 0 ...	18 10 0
No. 1 quality £4 per ton extra.		
Flat and Galvanised Corrugated Sheets— Ordinary sizes 6 ft. to 9 ft. to 20 g.	13 0 0 —	14 0 0
Ordinary sizes 6 ft. to 9 ft. to 22 g. and 24 g.	14 10 0 ...	15 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	16 10 0 ...	17 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 8 ft. to 20 g. and thicker	18 0 0 ...	19 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	20 0 0 ...	22 0 0
Best Soft Steel Sheets, 26 g.	21 10 0 ...	23 0 0
Cut Nails, 3 in. to 6 in.	15 0 0 ...	16 0 0

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	0 9½
Strong sheet "	0 10
Thin "	0 11
Copper nails "	1 0
Copper wire "	0 11

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
29/- 45/- 76/- 153/- 246/- 510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
41/6 62/- 92/- 176/- 300/- 588/- per doz.

RIVER PATTERN SCREW DOWN MAIN PRESSURE.
½ in. ¾ in. 1 in.
39/6 60/- 116/6 per doz.

CAPS AND SCREWS.
1½ in. 1¾ in. 2 in. 3 in. 3½ in. 4 in.
7/6 10/- 14/- 23/- 30/- 42/- per doz.

DOUBLE NUT BOILER SCREWS.
½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
7/6 11/- 17/- 29/- 36/- 63/- per doz.

BRASS SLEEVES.
1½ in. 2 in. 3 in. 3½ in. 4 in.
10/- 12/- 20/- 24/- 31/- per doz.

NEW RIVER PATTERN CROYDON HALL VALVES, S.F.
½ in. ¾ in. 1 in. 1¼ in. 1½ in.
35/- 56/- 98/- 182/- 228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.
1½ in. 1¾ in. 2 in. 3 in.
8 lbs. P. traps ... 33/- 41/- 56/- 101/- per doz.
8 lbs. S. traps ... 35/- 45/- 66/- 126/-

TIN.—English Ingots, 1/7 per lb. SOLDER.—Plumber's 9d., Tinmen's 10d., Blowpipe 11d. per lb.

*The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*cont.*)

LEAD, &c.

(Delivered in London.)

	£	s.	d.
Lead—Sheet, English, 4 lb. and up	24	10	0
Pipe in coils	25	0	0
Soil pipe	28	0	0
Compo pipe	28	10	0

Note.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes 5s. cwt. extra.

Old lead, ex London area, at Mills .....per ton } £14 10 0

PAINTS, &c.

		£	s.	d.
Raw Linseed Oil, in pipes ..... per gallon		0	1	11
,, ,, ,, in barrels ... ,,		0	2	1
,, ,, ,, in drums ... ,,		0	2	4
Boiled ,, ,, in barrels ... ,,		0	2	5
,, ,, in drums ... ,,		0	2	7
Turpentine in barrels ..... ,,		0	4	6
,, in drums (10 galls.) ,,		0	4	8
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.)		48	10	0
Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.				
Genuine White Lead Paint. "Father Thames." "Nine Elms," "Park," "Supremus," "St. Paul's." "Morganwyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots. per ton delivered ...		64	10	0
Red Lead, Dry (packages extra) ... per ton		34	0	0
Best Linseed Oil Putty ..... per cwt.		0	13	6
Size. XD quality .....ftn.		0	3	0

GLASS.

English sheet glass in crates of stock sizes.

Per ft.		Per ft.	
15 oz. fourths ...	2½d.	32 oz. fourths	7½d.
15 ,, thirds ...	3d.	32 ,, thirds.....	9½d.
21 ,, fourths ...	3½d.	Obscured Sheet, 15 oz. ...	3½d.
21 ,, thirds ...	4½d.	,, ,, 21 oz. ...	4½d.
26 ,, fourths ...	4½d.	Fluted, 15 oz. 7d., 21 oz....	9½d.
26 ,, thirds ...	7½d.	Em'lled, 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

English rolled plate in crates of stock sizes.

	Per ft.
¼ Rolled plate	4½d.
⅛ Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

"Vita" glass.	Per foot. s.	d.
Clear sheet—not exceeding 1 foot	1	0
Do. do. 2 feet.....	1	3
Do. over 2 feet	1	9
Polished plate—not exceeding 1 foot	1	6
Do. not exceeding 2 feet.....	3	0
Cathedral—not exceeding 1 foot	1	0
Do. larger sizes	1	6
Horticultural—for greenhouses, etc. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1	0
3/16 in. Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide.....	2	6

VARNISHES, &c.

		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal.....	ditto	0	18	0
Pale Copal.....	ditto	1	0	0
Pale Opal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	6
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting.....	ditto	1	0	0
Hard Drying Oak	ditto	0	18	6
Fine Hard Drying Oak	ditto	0	19	6
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	0
Best ditto	ditto	1	2	6
Best Japan Gold Size.....		0	12	0
Best Black Japan		0	10	0
Oak and Mahogany Stain (water).....		0	12	0
Brunswick Black		0	7	0
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebene		0	9	0
Cutrass Black Enamel		0	7	0

Polytechnic Association of Builders.

A party of 49 members and friends of this Association assembled at "Ideal House," the West End headquarters of the National Radiator Co., Ltd., on Tuesday, February 16, and were escorted around the showrooms in small groups by Mr. W. G. Case, manager of Technical Dept., and a number of the firm's representatives. Following this inspection, a lecture on hot-water heating generally, illustrated by lantern slides, was given by Mr. Case. The Chairman, Mr. Ralph Peacock, L.I.O.B., expressed the appreciation of all present for an interesting evening.

THE SCOTTISH BUILDER

HOUSING PROGRESS

The following figures show the progress that has been made in State-aided housing schemes in Scotland to January 31, 1932 :—

	Com. pleted.	Under con- struction.
1919 Act	25,129	—
do. (by public utility societies)	421	—
Private subsidy schemes (1919 Additional Powers Act)	2,324	—
Slum clearance schemes ...	14,441	1,063
1923 Act :—		
By local authorities ...	4,034	—
By private enterprise ...	21,161	2,345
By public utility societies	80	—
1924 Act :—		
By local authorities ...	54,532	5,989
By private enterprise ...	3,502	589
By public utility societies	127	16
1930 Act :—		
By local authorities ...	502	3,500
Unallocated houses... ...	—	360
Demonstration houses ...	17	—
Steel houses erected on behalf of Government by Scottish National Housing Company	2,552	—
	128,822	13,862

NEW BUILDINGS

Arbroath.—Additions.—Tenders are being invited by the Angus C.C. for alterations and additions to the High School. Master of Works, Municipal Buildings, Forfar.

Edinburgh.—Houses.—Sanction to the following building has been given by the Dean of Guild Court :—Charles W. Falconer, garage, petrol pits and pumps at Liberton-gardens; George Orr, six bungalows at 3-13, Britwell-crescent, Craigentinny; Thomas Brown, four flatted villas at Moira-terrace, Portobello-road; City, mortuary and chapel at Gogarburn; Royal Infirmary, alterations on surgical theatre at Lauriston-place; North British Rubber Co., Ltd., Castle Mills, to demolish and re-erect vulcanite works.

Falkirk.—Building.—The Dean of Guild Court has sanctioned plans for the erection of new buildings, at £7,000. These included extensions to Meeks-road school, Falkirk, involving an outlay of close on £4,200, and three bungalows costing £2,000.

Glasgow.—Houses.—The T.C. are inviting tenders for 102 houses at Govanhill, Riddrie, and Wellmeadow.

Hamilton.—Housing.—A new departure in municipal housing is contemplated by Hamilton Town Council, and it is stated that the Department of Health have approved generally of a proposed new hostel at Low Waters. A plan has been proposed showing a hostel with 12 houses of one apartment, two of two apartments, and the provision of a common-room.

Kelty.—Housing.—The Public Health Committee of Fife C.C. has remitted to the County Clerk to negotiate with the Fife Coal Co. for a site for 60 houses to be erected at Kelty. It was proposed that another 16 houses should be erected at Kelty, and the Clerk was instructed to ask on what terms a site could be obtained.

Musselburgh.—Extensions.—Musselburgh Dean of Guild Court have given warrant to Inveresk Paper Co. to extend their mill premises; and to the Governors of Loretto School to extend the recreation hall of the school.

Paisley.—Building.—The Paisley Dean of Guild Court has approved of a lining for the erection by the Paisley Good Templar Trust of a suite of new halls at Old Sneddon-street and New Sneddon-street. The Court also approved the following :—County Council of Renfrew, to make internal structural alterations at Ferguslie public school.

Queensferry.—Houses.—Mr. C. S. Paterson, Burgh Surveyor to the T.C., has prepared plans for 28 houses in Hopetoun-road. No contract has yet been placed.

LAW REPORT.

Appeal Against Assessment.

Mr. Cecil Whiteley, K.C. (chairman), sitting with other justices at the Surrey Quarter Sessions at Kingston-on-Thames recently, allowed the appeal of Mr. Frank John Privett, builder and contractor, carrying on business at West-street, Haslemere, against the decision of the South-Western Area Assessment Committee that his building works were not an industrial hereditament within the provisions of the Rating and Valuation (Apportionment) Act, 1928. The net annual value of the property, described as "building works and appurtenances," was put down in the Valuation List as £195. Mr. Privett appealed on the ground that the hereditament was an industrial heriditament within the meaning of Section 3 (1) of the Rating and Valuation (Apportionment) Act, 1928, in that it was occupied and used as a factory or workshop. He further claimed that it was an industrial hereditament by reason of its primary use as a contracting builders' workshop, it being registered as a factory under the Factory and Workshops Acts and because the work carried on in the mill and other workshops was of an industrial character, in that there was carried on therein the manufacture of articles for use in a builder's business. Mr. Privett therefore asked the Court to say that the apportionment of value made by the Rating Authority as between the industrial and non-industrial portions of the premises was inequitable and unfair.

Mr. Blanco White, barrister-at-law (instructed by Messrs. Edmonds and Bullin, solicitors, of Portsmouth), appeared for the appellant, and Mr. C. H. Pearson and Mr. Manley (instructed by Messrs. Smallpeice and Merriman, solicitors, of Guildford) represented the respondent Assessment Committee.

BUILDING TRADE WAGES IN SCOTLAND*

Following are grade rates authorised by the Scottish N.J.C. for Building Industry. The bricklayers in the Glasgow district have ½d. per hour extra. It should be noted that plasterers and painters who are not parties to the Scottish N.J.C. pay higher wages of 1d. and ½d. per hour extra respectively. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classifications ...	A	A¹	A²	A³	B	B¹	B²	B³
Craftsmen	1/6½	1/6	1/5½	1/5	1/4½	1/4	1/3½	1/3
Labourers	1/2	1/1½	1/1½	1/0½	1/0½	1/–	/11½	/11½

Aberdeen	A	Dundee	A	Hawick	A²	Perth	A
Airdrie	A	Dunfermline	A	Helensburgh	A	Perthshire	A²
Alexandria	A	Dunoon	A	Inverness	B	Peterhead	A²
Arbroath	A²	East Lothian	A	Kilmarnock	A	Renfrewshire	A
Ayrshire	A	Edinburgh	A	Kincardineshire	A²	Rothesay	A
Bathgate	A	Falkirk	A	Kinross-shire	A	Roxburghshire	A²
Bo'ness	A	Forfarshire	A²	Kirkcaldy	A	St. Andrews	A
Broughty Ferry	A	Fort William	A	Lanarkshire	A	Selkirkshire	A²
Clackmannanshire	A	Galashiels	A²	Leith	A	Stirling	A
Coatbridge	A	Glasgow	A	Midlothian	A	Stirlingshire, West	A²
Dumbartonshire	A	Greenock	A	Motherwell	A	West Lothian	A
Dumfries	A²	Hamilton	A	Peeblesshire	A²	Wishaw	A
Dumfriesshire	A²						

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 404.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing on, wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	9	9
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	4
Do. to sides of excavation, including shoring	"	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	27	0
Add if in underpinning in short lengths	" "	6	0
Add if in floors 6 in. thick	" "	2	6
Add if in beams	" "	3	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	"	2	0

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	5	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	"	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork:—			
Fair external in half brick rings	" "	0	10
Axed in stocks	" "	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	"	1	0
Setting ordinary register grates and stoves	each	1	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks		4	15

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	"	1	0

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0
Chilmark stone fixed complete	" "	17	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	4	3
Do. joists	" "	4	9
Do. roofs, floors and partitions	" "	5	3
Do. trusses	"	7	9

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	33/6	38/-	43/-	70/-
Flat centering for concrete floor, including struts or hangers	"				50 0
Do. to beams	per ft. sup.				0 9
Centre for arches	"				1 6
Gutter boards and bearers	"				1 0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.	—	42/6	50/-	57/6
Do. tongued and grooved	"	—	47/-	56/-	64/-
Do. matchings	"	44/-	49/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights: average size	"	3	9

DOORS

		1¼"	1½"	2"
Two-panel square framed	per ft. sup.	2/1	2/3	2/6
Four-panel Do.	"	2/4	2/6	2/9
Two-panel moulded both sides	"	2/6	2/9	2/11
Four-panel Do. Do.	"	2/9	2/11	3/3

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/6	1/6	1/9
Add if cross-tongued		2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/6	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail average, 3 in. × 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/6	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/6		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	15	3
Plain compound girders	"	16	0
Do. stanchions	"	20	9
In roofwork	"	20	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/4	1/7	1/9	2/-
Ogee Do. Do.	"	1/6	1/9	2/3	2/9
Rain-water pipes with ears	"	1/6	2/4	—	—
Extra for shoes and bends	each	3/4	4/11	—	—
Do. stopped ends	"	1/6	1/10	2/9	3/3
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	40	0
Do. Do. in flats	"	39	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	"	0	3

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/1	1/7	1/10	3/-	3/6	—
Do. service	"	1/6	2/-	2/5	3/6	—	—
Do. soil	"	—	—	—	—	—	—
Bends in lead pipe	each	—	—	—	—	3/-	6/6
Soldered stop ends	"	1/-	1/4	1/9	2/6	3/2	—
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/6	3/-	3/6	4/4	5/6	7/9
Lead traps and cleaning screws	"	—	—	—	12/7	17/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	"	2	2
Do. plain face	"	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	3

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	7½
26-oz. Do.	" "	0	10
Obscured sheet	" "	1	1
¼-in. rolled plate	" "	0	9
½-in. rough rolled or cast plate	" "	0	16
¼-in. wired cast plate	" "	1	3

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	2
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

*These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of ½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

"Bidston Court."

We are asked to state that the whole of the sanitary fittings for "Bidston Court" (now "Hillbark"), illustrated and described in our issue for February 5, were made and supplied by Messrs. Musgraves (Liverpool), Ltd.

The A.R.P. Studios.

In these Studios, illustrated this week, the Central Joinery Co. (1927), Ltd., 179, High-road, N.W.6, supplied and fixed, under the architect's orders, the flush doors and the panelling in production theatre; the 9-ft. circular table in the directors' dining-room; and the restaurant tables.

A Company Result.

We learn that, notwithstanding adverse trade conditions, the directors of Twisteel Reinforcement, Ltd., in issuing their report for the year ending December 31, 1931, have declared a dividend of 8 per cent. on the cumulative participating preference shares and 25 per cent. dividend on the ordinary shares of the company.

An Improved Automatic Lock.

It is interesting to learn that there has been recently placed on the market an unjammable penny-in-the-slot automatic lock, in which a second coin cannot be inserted while the lavatory is engaged, because a "coin-insertion-preventing-stop" comes into operation immediately after the first coin is inserted. To gain access a small exterior knob is turned, which has been put into action by the insertion of the penny, and the indicating plate is also actuated by the fall of the penny and works with a smooth action. To gain exit one has only to turn a knob upon the inside. This actuates the bolt and latch mechanism, and also alters the indicating plate back to "Vacant," and all actions move with the utmost simplicity. A booklet fully describing the interior working, and giving many more additional advantages, may be had upon request to the sole patentees, Messrs. Parker, Winder and Achurch, Ltd., Broad-street, Birmingham.

Steel Furniture and Equipment.

One of the greatest changes during the last ten years or so has been the extraordinary development in the use of steel in the construction, equipment and furnishing of offices, banks and other large buildings.

The structure of the modern building is mainly of steel, with a brick or stone casing, and steel, again, is now largely used in almost every large up-to-date building for partitions and doors. In addition to saving floor space, steel doors and partitioning have the advantage of offering a far greater resistance to fire than wood. Messrs. G. A. Harvey and Co. (London), Ltd., Woolwich-road, London, have supplied steel doors and partitions for many large buildings, both at home and abroad. These partitions are easily erected, and being made in sections, the "Harvey" steel partitions can be quickly dismantled and re-erected without skilled labour. This is a great advantage in offices, factories and warehouses, where it is often found necessary to re-apportion the floor space.

The elimination, as far as possible, of everything combustible is the next logical step to fire-proof construction, and, here again, steel furniture offers an efficient and economical method of carrying this out. A wide range of office requisites in steel can now be obtained, amongst which may be mentioned filing and card-index cabinets, desks, tables, cupboards, wardrobes, shelving and waste-paper tubs.

In addition to manufacturing standard lines in all the items we have mentioned, Messrs. Harvey undertake to prepare special designs in steel furniture and equipment to meet particular requirements, and a point worth noting is that they are British products throughout.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office.*

Aberdeen.—Overline bridges, for the C.C.:—

Birkenhills, Oldmill and Plaidy bridges—steelwork—
*Sir William Arroll & Co., Ltd., Glasgow £3,102 5 3
Abutments and earthwork—
*William Tawse, Ltd., Aberdeen... 7,994 17 4
Brucklay bridge—steelwork—
*William Baird & Son, Ltd., Glasgow 725 14 5
Abutments and earthwork—
*William Tawse, Ltd., Aberdeen... 994 18 6

Bangor.—Alterations and additions to Bala-Bangor Independent College, for the Trustees. Principal, Mr. Morgan Jones. Mr. Griffiths Davies, Borough Surveyor's Office, Beaumaris:—

Builders—*William Parry & Co., Bangor, North Wales.
Heating—*Craig & Mills, Ltd., Chorlton-cum-Hardy, Manchester.

Barking Town.—Composition flooring of houses on the Upney housing estate, for the U.D.C.:—

	Per sq. yard.
½-in. thick flooring (one layer) for 66 houses—	
*British Magnesite Flooring Co.	4 0
¾ in. thick flooring (two layers) for 6 houses—	
*Jointless Composition Flooring Co. ...	4 4

Barking Town.—Supply and fixing of roof tiling to the houses, for the T.C.:—

	Per square
*W. J. Heath & Son	£1 9 6

Barking Town.—Tiling of 24 houses, for the T.C Borough Engineer and Surveyor:—

	Per square.
*Westminster Tiling Co Ltd.	£1 13 6

Birkenhead.—Alterations to "Commercial Hotel," Beckwith-street, for Messrs. Peter Walker & Son (Warrington and Burton), Ltd., 105, Duke-street, Liverpool:—

*Brewery's Building Dept., Liverpool.

SAVING

"MANGER'S" Sugar Soap has many proved labour and time saving advantages and makes the quality of your work second to none.

★ Labour costs are halved and working easier if you *WET-RUB-DOWN with waterproof abrasive and "MANGER'S."*

★ This *one* operation takes the place of pumice-ing and then rubbing down.

★ SAVES BURNING OFF AND RE-PRIMING if work not cracked or blistered *right* through.

★ Simply f i n e d o w n with "MANGER'S" quickly and easily, and you have your surface right and ready primed.

★ Soluble in hot or cold water, so easily removed in the rinse down.

★ Costs only 4½d. a packet, enough to make 16–32 pints of solution. 4½d. in dozen lots, 4d. in 3 dozens.

B2/SBS*/6

Birmingham.—Extensions to "Argent Works," Graham-street and Frederick-street, for Messrs. W. J. Myatt & Co., Ltd. Messrs. Ewen Harper, Brother & Co., F.R.I.B.A., architects, Ruskin-chambers, 191, Corporation-street.—

*Frank Davies, Ltd., Birmingham.

Blackpool.—Two-story car park at the Winter-gardens, for Blackpool Winter Gardens & Pavilion Co., Ltd. Messrs. J. E. Mallalieu, A.M.I.C.E., and J. C. Derham, L.R.I.B.A., Church-street, joint architects:—

*Thos. Blackburn & Sons, Ltd., Preston.

Bloan.—Two houses at the Herne and Receiver Disposal Works, for the R.D.C.:—

*Mr. Hogbin, Broadstairs £725 12
(Surveyor's estimate: £780.)

Bromsgrove.—Rebuilding "Golden Cross" hotel, for Messrs. Mitchells & Butlers, Ltd., Cape-hill Brewery, Smethwick, Birmingham. Messrs. Watson & Johnson, A.R.I.B.A., architects, Winchester House, Victoria-square, Birmingham:—

*J. & R. Brazier, Bromsgrove.

Carlisle.—64 houses for aged people in Greystone-road, for the T.C. Mr. Percy Dalton, A.R.I.B.A., City Architect, 18, Fisher-street:—

*John Laing & Son, Ltd., Carlisle.

Carmunnock.—34 bungalows. Mr. S. Bunton, junr., architect, 219, St. Vincent-street, Glasgow:—

*J. Gibson & Sons, Glasgow.

Carnforth.—Presbytery in Kellett-road, for Rev. H. Parker, P.P., Our Lady of Lourdes. Mr. Lionel A. G. Pritchard, A.R.I.B.A., architect, 57, Moor-fields, Liverpool:—

*Rainey Bros., Ltd., Barrow-in-Furness.

Chester.—First contract in connection with the Lache sewerage scheme, for the T.C. City Surveyor:—

*A Monk & Co., Ltd., Warrington £41,806 13 3

Chester.—Second contract in connection with the Bumpers-lane sewage disposal works scheme, for the T.C.:—

*McLellan Bros., Chester £968

Congleton.—36 miles of cast-iron pipes and specials from 9 in. in dia., etc., for the R.D.C. Mr. Herbert Lapworth, engineer, 25, Victoria-street, Westminster, S.W.1:—

*Thomas Coates (1927), Ltd., Bury.

Coventry.—New hospital on land of the Corporation near the junction of London-road and Humber-road, for the T.C.:—

*W. H. Jones & Son, Ltd., Coventry £113,500

Craigellachie.—New hall at Craigellachie:—

Mason—*D. McIntosh, Craigellachie.
Carpenters—*A. & R. Dunbar, Craigellachie.
Slater—*A. Sinclair, Aberlour.
Plumber—*R. W. Morrison, Aberlour.
Painter—*McDonald, Rothes.
Plasterer—*Bain, Aberlour.

Croydon.—For Woodmere-avenue sub-station, for the C.B.:—

Maides Bros.	£520
E. H. Smith, Ltd.	515
G. Poulton & Son	506
E. J. Saunders	498
Truett & Steel, Ltd.	496
D. Waller	475
Grace & Marsh	465
*F. Liley & Son	445

Deal.—Shopfront, interiors, etc., at 18 and 18a, High-street:—

*Pike & Pettengell, 111-115, Hardres-street, Ramsgate.

Derbyshire.—Medical superintendent's house at County Mental Hospital, Mickleover, for the C.C. Mr. George W. Widdows, F.R.I.B.A., County Architect, County Offices, St. Mary's Gate, Derby:—

*M. Basford, Derby £3,028

Dumfries.—Heating installation for new municipal buildings, for the T.C. Mr. James Carruthers, architect, 209, St. Vincent-street, Glasgow:—

*Taylor & Frazer, 51, Argyll-street, Glasgow.

Edinburgh.—Reconstruction of Ward 24 at Bangour Mental Hospital, for the T.C. Mr. E. J. MacRae, A.R.I.B.A., City Architect. Quantities by Mr. Jas. D. Gibson, F.F.S., 60, Frederick-street:—

Mason—	
*G. & R. Cansin, 24, Hill-street ...	£575 14 10
Joiner—	
*J. Morrison, Pumpherston	250 10 0
Plasterer—	
*G. M. Paris, Broxburn	201 5 4
Plumber—	
*D. Stevens, 15, Howe-street	93 0 0
Slater—	
*P. Kelly & Sons, 129, Montgomery-street	210 18 2
Glazier—	
*Dickson Walker, 31, 8th. Frederick-street	81 14 3

(Remainder of Edinburgh.)

Edinburgh.—Bank, and other premises, shops and houses at Corstorphine-road :—
*James Miller, Miller-place, Edinburgh.

Edinburgh.—Installation of electric lighting and power in seven houses and one shop at Weir's-close, Canongate, for the T.C. Burgh Engineer, Dewar-place :—
*S. Fairbairn & Sons, 46, Montrose-terrace, Edinburgh.

Enfield.—Factory on the Cambridge arterial road, Enfield, for Messrs. Belling & Lee, Ltd :—
*Commercial Structures, Ltd., E.C.1.

Fifeshire.—Two and three-roomed houses at Rosie, East Wemyss, for the C.C. :—
Excavation, brick and mason—*Robert Terras, Junr., East Wemyss, Buckhaven.
Joinery, carpentry and ironmongery works—*Alexr. Brown, East Wemyss, Buckhaven.
Plumber—*Wm. Nicol & Son, Randolf-street, Buckhaven.
Plaster, etc.—*W. D. Thompson, Glencairn, Wellesley-road, Methil.
Glazier, etc.—*Carron & Co., Glass Workers, Kirkcaldy.
Painting, etc.—*J. C. Rolland, Junr., Randolf-street, Buckhaven.
Electric installation—*J. B. Beveridge, Dunfermline.
Slater work, heating, etc.—*W. Stewart & Sons, Crossgates, Cowdenbeath.

Fleetwood.—Bank, corner of Ratcliffe-road and Warrenhurst-road, for the National Provincial Bank, Ltd., Bishopsgate, London, E.C.2. Mr. F. C. R. Palmer, F.R.I.B.A., architect, National Bank, Ltd., Bishopsgate :—
*Roger Eaves, Fleetwood.

Formby.—Alterations to the "Blundell Arms" Inn, at the corner of Cross Green, Three Tuns-lane and Liverpool-road, for Messrs. Threlfall's Brewery Co., Ltd., Trueman-street, Liverpool. Messrs. Medcalf & Medcalf, FF.R.I.B.A., architects, 3, Stanley-street, Liverpool :—
*W. A. Gale, Ltd., Liverpool.

Frizinghall.—New hoist tower at Gordon Mills :—
*S. Wray & Co.

Gainsborough.—50 houses on the Haldane-street site, for the U.D.C. :—
*B. Pumfrey, Ltd., Gainsborough.

Glasgow.—Reconstruction and extension and demolition at motor-bus station of General Omnibus Co., Waterloo-street. Mr. A. M. McNab, architect, 108, Renfield-street. Quantity surveyor, Mr. J. Wilkie :—
Demolition, excavation, brick and mason—*J. Emery & Co., Ltd., 169, Hope-street, Glasgow.
Joinery, carpentry and ironmongery—*Lawson & Co. (Govan), Ltd., Park Saw Mills, Albion-street, Govan, Glasgow.
Metal casement windows — *MacLean & Co. (Steel Sashes), 145, Bath-street, Glasgow.
Slater—*Thomas Stewart & Co., Sword-street, Gallowgate, Glasgow.
Glazier work, etc.—*W. Meikle & Son, 19, Wellington-street, Glasgow.
Plumber—*J. Irvine & Son, Ltd., 328, Pollockshaws-road, Glasgow.
Plaster—*William Tounar & Son, Ltd., 138, North-street, Glasgow.
Electrical installation—*Haddon & Co., 59, Bath-street, Glasgow.

Glasgow.—24 houses at Altyre-street, for the T.C. Mr. Robert Horn, Housing Architect :—
Excavation, brick and mason—
*Robert Bruce & Sons, 57, Anworth-street, Tollcross, Glasgow £2,820 12 6
Joinery, carpentry and ironmongery—
*S. M. Stark & Co., 22, Williamson-street, London-road, Glasgow 1,750 0 0
Slater—
*Thos. Stewart & Co., Ltd., 6, Sword-street, Dennistoun, Glasgow 306 1 5
Plumber—
*McCulloch & Griffin, 47, Rose-street, Garnethill, Glasgow 1,160 0 0
Plaster—
*Archibald McKeller, 19-21, Palmstreet, Garscube, Glasgow 396 3 0

Gosport.—Heating scheme at Gosport, for H.M Air Ministry :—
*Brightside Foundry & Engineering Co., Ltd., 17, Summer-row, Birmingham.

Hamilton.—Bank buildings at junction of Cadzow-street and Auchingramont-road, for the British Linen Banking Corporation, Ltd., St. Andrew's-square, Edinburgh. Mr. Alexander Cullen, architect, 93, Cadzow-street, Hamilton :—
Excavation, brick and mason—*Thomas Anderson & Son, Auchingramont-road, Hamilton.
Joinery, carpentry and ironmongery—*John McGirr & Co., Ltd., 200, Quarry-street, Hamilton.
Plumber—*Thomas Gordon, 76, Townhead-street, Hamilton.
Tile and terrazzo—*Toffolo, Jackson & Co., 110, West Regent-street, Glasgow.
Plaster—*Wilson & Hendry, 35, Portland-place, Hamilton.
Electricity installation—*W. J. McAdam, 48, Camphill-street, Hamilton.
Painting and decorating—*J. McLaren, 11, Cadzow-street, Hamilton.

Hull.—For the erection of a new hotel, "The Grapes," in Ferensway, for Messrs. Moors' & Robson's, Ltd. Mr. Fred Robson, architect, Southam-chambers, Hull :—
*B. G. Tarran, Ryde-avenue, Hull (approximately) £30,000

Keith.—Houses, for the T.C. :—
Mason work—*C. Cruickshank and Sons, Keith.
Carpenter work—*A. Cuthbert, Keith.
Slater work—*C. Dickie & Sons, Turriff.
Plaster work—*P. McPherson, Inverurie.
Painter work—*R. G. Mitchell, Keith.

Leeds.—Alterations and additions at 157, Woodhouse-lane. Messrs. Braithwaite & Jackman, architects :—
*B. Coates & Sons, Ltd.

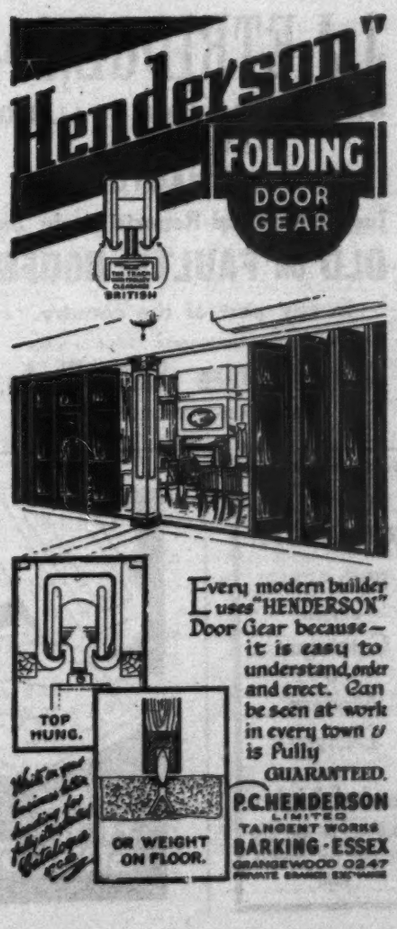
Lichfield.—For the erection of Lichfield Victoria Cottage Hospital on the Friary-road site, for the Building Committee. Mr. Thomas A. Pole, A.R.I.B.A., architect, 19, Hanover-square, London, W.1 :—
*J. R. Deacon, Lichfield.

Liverpool.—Factory premises in Lorenzo-drive, for Mr. H. G. Hughes. Messrs. George Bradbury & Sons, architects, 14, Cook-street :—
*Roberts & Sloss, Ltd., Liverpool.

Liverpool.—Erection of "Cattle Market" Inn, Prescot-road, Stanley, for Messrs. Bent's Brewery Co., Ltd., 30, Johnson-street. Mr. A. Ernest Shennan, F.R.I.B.A., architect, 14, North John-street :—
*Rimmer Brothers, Liverpool.

Liverpool.—Alterations and additions to the works at Smithdown-lane, for Messrs. Milner's Safe Co., Ltd., 12 and 13, Newgate-street, London, E.C. Dr. Oscar Faber, engineer, London :—
Builders—*William Tomkinson & Sons, Liverpool.
Steelwork—*D. T. Brown, Son & Co., Liverpool.

¶**London.**—Tenders accepted by H.M.O.W., for the week ended February 20 :—
Greenwich, S.E., Research Station—alterations—J. Mowlem & Co., Ltd., 91, Ebury Bridge-road, S.W.1.
Haywards Heath P.O. garage, etc.—erection—H. Finch, Haywards Heath.
Barrow P.O.—heating.—W. N. Mann & Co., 335, Cheriton-road, Folkestone.
Geological Museum, S.W. — asphalt. — French Asphalte Co., Ltd., Iddesleigh House, Caxton-street, S.W.1.
Stafford P.O.—alterations—F. Eepley & Sons, Victoria-road, Stafford.
Sheffield Sorting Office—erection—Abbott & Bannister, Ltd., 132, Machon Bank, Sheffield.



¶**London.**—The following works contract has been placed by the War Office during the week ended February 18 :—
Aldershot, Hammersley Barracks, erection of new dining room, etc. :—
*W. Laughton, Bedford.

London.—Alterations to the façade of Grand Buildings, Trafalgar-square, for Messrs. Claude General Neon Lights. Mr. Brian L. Sutcliffe, F.R.I.B.A., architect, 5, Manchester-square, W.1 :—
*F. G. Minter (Decorations), Ltd. £600

London.—Rebuilding works at 38, 40, 40a, Aldersgate-street, E.C.1, for Mr. Wm. Pullen. Mr. Brian L. Sutcliffe, F.R.I.B.A., architect, 5, Manchester-square, W.1 :—
*D. S. Richardson £754

London.—Alterations and additions to 98, High-street, Kingsland, for Messrs. S. W. Allardyce. Mr. Brian L. Sutcliffe, F.R.I.B.A., architect, 5, Manchester-square, W.1 :—

D. S. Richardson	£612 7
I. J. Galinski	597 15
Hickman, Ltd.	595 0
J. Cannon & Son	545 0

London.—Alterations to the First Avenue Hotel, High Holborn. Mr. Brian L. Sutcliffe, F.R.I.B.A., architect, 5, Manchester-square, W.1 :—
*Steel & Co. £2,625
*F. G. Minter (Decorations), Ltd. ... 6,391

London.—Repairs to the defective walls at 67-77, Charterhouse-street, E.C., for the City Corporation :—

Rice & Son, Ltd.	£2,100
Higgs & Hill, Ltd.	1,595
L. & W. Whitehead, Ltd.	1,623
Permanens, Ltd.	1,043
*Courtney & Fairbairn, Ltd.	963

London.—For erection of the Berners-road electricity sub-station, for the Islington B.C. Mr. E. C. P. Monson, F.R.I.B.A., F.S.I., architect, 120, Moorgate, E.C.2 :—

W. J. Cearns	£2,397
Henry T. Hallett	2,319
L. & W. Whitehead, Ltd.	2,200
G. H. Carter, Ltd.	2,150
Jos. Johnson	2,100
W. H. Wagstaff & Sons	2,091
Architect's Estimate	2,050
A. H. Churchman, Ltd.	2,040
Bridges & Clarke, Ltd.	2,012
W. & M. Negus, Ltd.	1,994
Leslie & Co., Ltd.	1,978
Holliday & Greenwood, Ltd.	1,930
Charles Berger	1,899
John C. Mather & Son	1,856
The Ashford Builders' Co., Ltd.	1,847
C. P. Roberts & Co., Ltd	1,830
Commercial Structures, Ltd.	1,819
Hammond & Barr, Ltd.	1,798
*King & Stannard, Ltd., Whetstone, N.20	1,717

(All of London.)

London.—Supply and erect oak fencing at the Deptford municipal playing fields, for the Deptford B.C. Borough Engineer :—
*N. Harris & Sons £134 15

London.—Overhaul and renew, where necessary, the patent glazing to roofs of lantern lights at the Kensal-road baths, for the Paddington B.C. :—
*W. Edgcumbe Rendle, Ltd., 5, Victoria-street, S.W.1 ..... £489

Louth.—Assembly hall as an extension to the existing premises for the Building Committee of the Wilde Memorial Hall, Louth :—
*Mawer Brothers, Kidgate, Louth.

Manchester.—Petrol filling station in Chester-road, Gorse Hill, Stretford, for Messrs. Looker, Ltd., Hardman-street. Mr. Joseph Holt, A.R.I.B.A., architect, 49, Deansgate :—
*R. Carlyle Co., Ltd., Manchester.

Mansfield.—Extension to factory in Kirkland-avenue, for Messrs. Seal & Turner, Ltd., Sutton-road. Messrs. Aubrey Lane, Son & White, L.R.I.B.A., architects, Queen's-chambers, Leeming-street :—
*Hedley Rowse, Mansfield Woodhouse, Notts.

Motherwell-Wishaw.—New sewage purification works, etc., at Lower Carbarns, Wishaw, for the T.C. Mr. L. Costley, engineer and surveyor, Municipal Buildings :—
Principal contractors—*Dow Co., Ltd., Victoria, London.
Excavation, banking, digester, clarifier, reinforced concrete work and concrete buildings—*Murdoch, MacKenzie, Ltd., Wilson-street, Motherwell.

Newcastle.—New school at Cowgate, for the T.C. :—
*R. Blackett & Sons, Dralington.
(In lieu of tender withdrawn.)

Newcastle-on-Tyne.—Builder's yard and office in Bentinck-road. Messrs. Hetherington & Wilson, architects, 52, Westgate-road :—
*Mr. Johnson, Elswick-road.

Newcastle-on-Tyne.—Installation of heating apparatus at the Raby-street Council schools, for the T.C. :—
*Robert W. Cairns, Newcastle £710

Preston.—Branch stores in Ribbleton-avenue, off Blackpool-road, for Preston Industrial Co-operative Society, Ltd., Ormskirk-road. Mr. G. H. Broadbent, architect, 12, Guildhall-street:—

*W. Beetham, Preston.

Preston.—Supply and delivery of 4,500 yds. of 30 in. diameter steel pipes with bituminous lining for new aqueduct works, for the T.C. Mr. E. C. Oakes, Water Engineer, Tithebarn-street:—

*Stewarts & Lloyds, Ltd., Glasgow £21,896 7 6

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Reigate.—Heating installation, at "Great Tylers," for Mr. Martin Cuningham. Mr. Brian L. Sutcliffe F.R.I.B.A., architect, 5, Manchester-square, W.1:—

Tamplin & Makovski	£304	8	0
Chas. P. Kinnell & Co.	253	10	0
*Hope's Heating & Lighting	241	12	0

Reigate.—Decorative work and alterations to "Great Tylers," for Mr. Martin Cuningham. Mr. Brian L. Sutcliffe, F.R.I.B.A., architect, 5, Manchester-square, W.1:—

F. G. Minter (Decorations), Ltd.	£445
D. S. Richardson	369

Ripley.—24 houses at Peasehill-road, for the U.D.C.:—

G. Brentnall, Riddings	£8,178
J. Wildman, Langley Mill	8,064
H. Hunt & Sons, Ripley	7,800
Harper & Green, Carlton	7,800
Alcock & Sisson, Eastwood	7,344
Bowmer & Kirkland, Heage	7,560
East & Walters, Ripley	7,080
F. Sisson & Sons, Ltd., Langley Mill	7,064
*Harris Brothers, Marehay	6,912

Romiley.—Erection of Catholic church, Gorsey Brow, for the Rev. O. Calderbank. Messrs. Edmund Kirby & Sons, F.R.I.B.A., architects, 5, Cook-street, Liverpool:—

*J. Dolan & Son, Warrington.

Seton.—Open-air bathing pool, for the Cockenzie and Port Seton T.C.:—

*William Orr, Cockenzie £971 5

Sevenoaks.—Provision of new roof lights to the swimming baths, for the U.D.C.:—

*Standard Patent Glazing Co., Dewsbury £196 13

Sheffield.—Junior school at Hatfield House-lane, Shiregreen, for the T.C. Mr. W. Geo. Davies, F.R.I.B.A., City Architect:—

*Direct Labour.

Sheffield.—Installation of hot water services in 200 houses on the Wybourn estate, for the T.C. Mr. W. Geo. Davies, F.R.I.B.A., City Architect:—

*A. Plant, 436, Attercliffe-road, Sheffield £2,554

Southend-on-Sea.—Alterations and additions at 27, Victoria-avenue, for the C.B. Mr. R. H. Dyer, Borough Engineer:—

*A. D. Jackson & Son, 7, Bournemouth Park-road, Southend-on-Sea £287

Southend-on-Sea.—Railway bridge over Lifstanway, for the T.C.:—

*Buttery Co., Ltd., Derby £5,360

Stockport.—Extensions to hat factory at Bredbury, for Messrs. Joseph E. Ward (Bredbury), Ltd. Messrs. Thorpe & Collier, L.L.R.I.B.A., architects, 66a, Deansgate, Manchester:—

*Crompton Bros., Hyde.

Tynemouth.—Extensions to the sea wall at Cullercoats, for the T.C.:—

*Brimms, Ltd., Newcastle £999

Wallsend-on-Tyne.—Church hall on the High Farm estate under the Bishop of Newcastle's Church Extension Fund. Messrs. Hicks & Charlewood, architects, 4, Mosley-street, Newcastle:—

*Middlemass, Ltd., Newcastle.

Woking.—Alterations at Horsell pumping station and the low level pumping station at the sewage work, for the U.D.C.:—

*Hardy & Co., Woking £18,456 12 1

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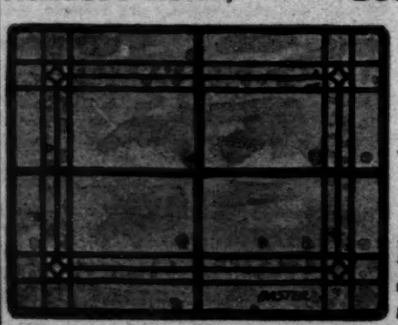

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